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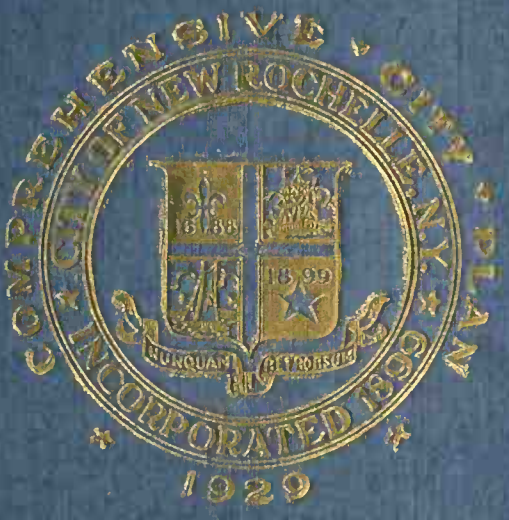

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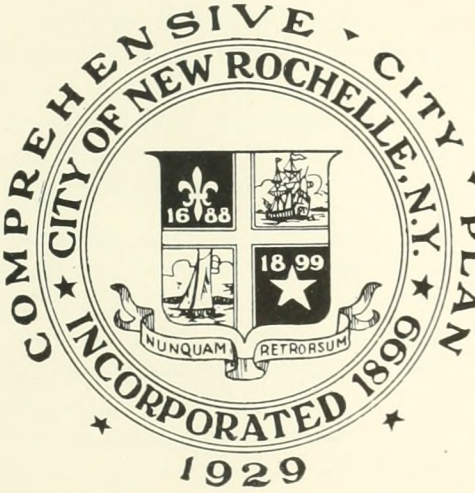
City Plan and Twenty-Year Program of Public Improvements for New Rochelle

Prepared by the
PLANNING BOARD



TECHNICAL ADVISORY CORPORATION
Consulting Engineers
15 Park Row
New York

November, 1929

To the Honorable Mayor and Council,
City of New Rochelle,
New York.

Honorable Sirs:—

The Planning Board takes great pleasure in submitting to you a Comprehensive Plan and Program for the further development of New Rochelle. Throughout the preparation of this Plan your Board has had the skillful assistance of the Technical Advisory Corporation of New York, who have made plans for nearly 100 municipalities, including a number in Westchester County.

We are strongly impressed with the fact that New Rochelle is at a critical point in its history. It clearly appears to be on the eve of a new and great development. It is nearer to New York City than any other community in which there is still available a large area suitable for the development of residential districts of a high type. It is the only community near New York that offers several square miles of open land that can readily be developed as an extension of such a residential district. It is closer to New York City than any community that has an attractive residential water front and a harbor practicable for yachting and boating.

Because of these outstanding assets it is not surprising that the speculative subdivider and apartment builder are each year looking at New Rochelle with greedier eyes. It is only a matter of a short time before much of the property of this community will be on the market because of this speculative interest. Experience throughout the country shows that in such cases the outside or selfish, speculative builder appears in hordes, exploits the land, and then vanishes. Obviously, he has little responsibility and less interest in the community and its welfare; rather, he lays out the sort of subdivision and puts up the type of building which he thinks he can sell the quickest and from which he can make the greatest return on his investment.

The only known protection against this exploitation is zoning and planning. Experience is proving that a properly drawn zoning ordinance and an up-to-date building code are an important step in assuring protection to property owners. Fortunately, New Rochelle has for years been scientifically zoned. Any ordinance is like a chain, no stronger than its weakest link. Adequate provision for the proper enforcement of such an ordinance is the measure of its strength. However, a zoning ordinance and a building code are less than half of the battle. They do not control subdivision platting and property development generally, nor do they determine a policy for the lay-out and execution of public improvements. Only a carefully worked out City Plan can determine satisfactory minimum standards for development—standards that will assure orderly, healthy growth. Nothing else will accomplish the desired result. Now is the time to control the situation before it is too late. Tomorrow the damage may be done irrevocably. We cannot afford not to adopt a Comprehensive City Plan as well as a Zoning Ordinance.

We are keenly appreciative of the great interest which you have given to our work at every stage. We feel the greatest confidence in the future of New Rochelle and believe that it is going to maintain its preeminence among the outstanding residential communities of the entire country.

Very truly yours,

THE PLANNING BOARD.

CHARLES F. SIMMONS, Chairman
CLIFFORD LEP. TOSTEVIN, Vice-Chairman
*GERTRUDE L. FONDA
ALBERT J. FEARING
LELAND HUBBELL LYON

PAUL A. BANKSON, C. E.
City Plan Engineer

*Succeeded Mrs. A. V. A. McHarg—July 1st, 1929.

THE PLANNING BOARD is greatly indebted to the many organizations and individuals, who, by their helpful suggestions and constructive criticism, have materially assisted in the preparation of this Plan.

Comprehensive planning, aggressively supported by public interest, will make and keep New Rochelle, a city practical and beautiful.

RECENT ACCOMPLISHMENTS OF CITY PLANNING

1. Amended Building Zone Ordinance and Map adopted July 13, 1929.

2. "As Is" Official Map adopted Feb. 10, 1928.

3. Amended Official Map adopted unanimously by City Council July 2, 1929.

4. Pine Brook Boulevard authorized and most of land purchased.

5. City Plan coordinated with Board of Education's three new school sites and schools.

6. Biltmore Avenue recommended as a relief road for the Boston Post Road in cooperation with the County Engineer.

7. Pelham Road roadway widened and right-of-way widened in cooperation with the County Engineer.

8. East Main Street widened, roadway widened, and trolley tracks removed in cooperation with the County Engineer.

9. Recommended widening of West Main Street in cooperation with the County Engineer.

10. The Harmon and other subdivision tracts in northern New Rochelle amended and approved.

11. Tennis courts have been provided on the city land west of Morgan Street.

12. Parking space at Liberty Park on Hudson Park Road has been provided.

13. North east corner of North Avenue and Huguenot Street cut off and North Avenue widened to Avenue E.

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COMPREHENSIVE CITY PLAN FOR NEW ROCHELLE

New Rochelle can have all public improvements as fast as actually needed, and at the same time keep within the tax rates of recent years.

Despite the unwarranted burden of having to pay off the heavy debts of the last generation, only now come due, despite the urgent requirements of an exceptionally rapidly growing city, it is still entirely feasible to carry out a comprehensive and worthy plan for the city's development and after a few years decrease the public debt.

That this is possible is due to the fact that the present net public debt is only about 7 per cent of the total assessed valuations, which is below the average of cities of its size, that the tax rate of $.02245, exclusive of county and state taxes, is about average and that the assessed valuations per capita of about $3,600 is fortunately high, although in the smaller communities of Scarsdale, Bronxville and Rye it is fully 50 per cent higher.

That the taxpayer is so well protected is due in part to the high average standard of recent private building and development which correspondingly decreases the share borne locally of the cost of city service and maintenance. Incidentally, it indicates the feasibility of increasing the cost of public improvements that should be paid out of local benefit assessments.

The city planning study has disclosed beyond question that the outstanding and most urgent needs of New Rochelle are as follows:

1. Relief for the local congestion caused by the Boston Post Road traffic, which runs as high as 50,000 vehicles a day. The widening of Pelham Road gives some relief through the center of the city.

2. More parking space in the business districts around the railway stations—now utterly inadequate.

3. Southerly extension of North Avenue by widening Rose Street and continuing to Clinton Place.

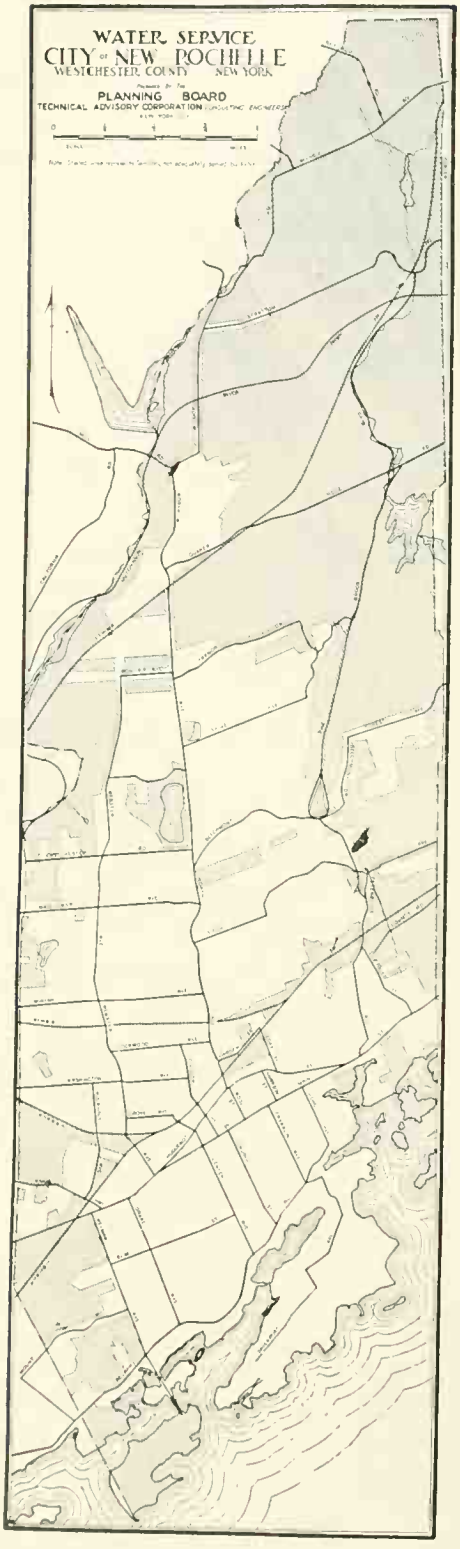
4. Relief for the congestion on North Avenue—at present the principal through north and south street in the city. Pine Brook Boulevard is an important step in this direction.

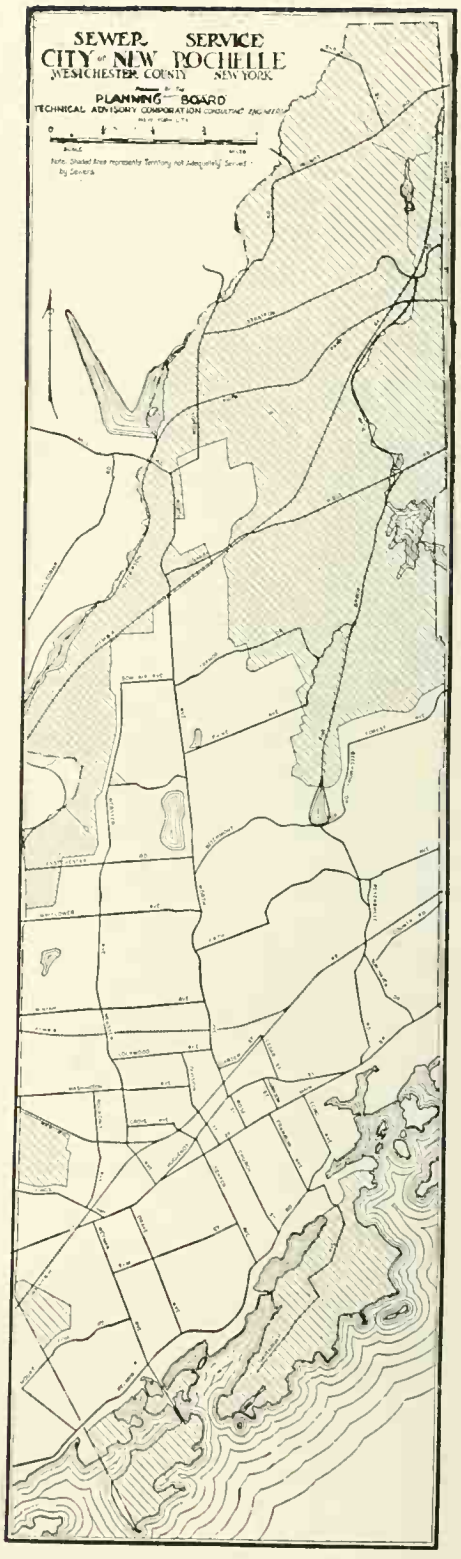
5. A new and adequate city hall that will be worthy of the New Rochelle of the future.

6. More playgrounds—as the city now has about the smallest play acreage in proportion to its size of any similar city in the East.

7. More schools—which, until recently, have been dropping farther and farther behind the city's rapid growth. The present Board of Education is wisely planning for future needs as well as present.

8. The adoption of a master plan or "Official Map" showing all widened, extended or new highways and enlarged or new parks together with revised platting regulations, to which all future building development and subdividing should conform. On July 2, 1929 such a map was officially adopted by the City Council of New Rochelle.


WATER SERVICE
CITY of NEW ROCHELLE
WESTCHESTER COUNTY NEW YORK
PLANNING BOARD
TECHNICAL ADVISORY CORPORATION


SEWER SERVICE
CITY of NEW ROCHELLE
WESTCHESTER COUNTY NEW YORK
PLANNING BOARD
TECHNICAL ADVISORY CORPORATION

Something effective must be done along each of these lines within the next few years.

Obviously, there are many other things that need attention, but none of them is so imperative as the matters just enumerated. These other items can be feasibly spread over a period of years. They include the following:

1. Sewers, both storm and sanitary—now well in hand and fortunately to be supplemented by the county disposal system.

2. Water supply—which needs little attention from the city.

3. Garbage and refuse disposal—which should not need greatly expanded facilities for several years.

4. New street paving and renewals—in which New Rochelle is probably well up to the average.

5. New thoroughfare facilities to handle the rapidly growing traffic and parking needs; to include:

   (a) New north and south thoroughfares on the east and west sides of the city;

   (b) Parallel relieving streets for Huguenot and Main Streets;

   (c) More cross connections north of the railroads;

   (d) Development of more thoroughfare capacity, especially for the undeveloped northern area of the city.

6. More grade separated highway crossings of the railroads and parkways and one or more viaducts over Pine Brook Valley.

7. Planting and good care of street trees, including careful attention to the appearance of streets everywhere by proper control of signs, billboards, stands, and street fittings and in some cases by the creation of street protective associations.

8. Adequate and permanent solution of the trolley and bus situation by track relocation or rerouting to relieve traffic congestion—all with a view to the eventual complete substitution of buses.

9. Neighborhood business centers with adequate parking and loading facilities and attractive setting, with proper protection for bordering residential areas.

10. Fire and police stations—which fortunately will not need any material expansion for five to ten years.

11. Parks—which, thanks to the present facilities of the city and county, will need little addition except for the provision of small neighborhood parks in districts now unserved.

12. Athletic field and stadium—at present so inadequate.

13. An open air theatre and "community center."

14. An auditorium and memorial hall.

15. A museum and cultural group about the high school.

16. The development of the harbor, now so tawdry and repulsive, into an effective port and attractive water gateway to the city, with adequate boating, yachting, and bathing facilities.

17. A hydroplane base and a possible airfield.

18. Appointment of a Joint Budget Commission, composed of the proper financial authorities, to lay down a five, or preferably a ten year, budget program for all public improvements, as well as providing adequate annual allotments for all administrative and debt service expenses.

19. Creation of an active and widely representative Citizens' City Plan Committee which should constantly bring constructive suggestions from the public to the planning authorities and who, in turn, should act as the interpreters of the plan to the public. Experience shows that such a committee can be of the utmost help in keeping the City Plan alive and in assuring continuity of policy, and is absolutely necessary to insure the effective execution of the plan.

20. The printing and wide distribution of this City Plan Report for the information of the whole public.

All these 28 items can and should be woven together into a Comprehensive City Plan and Program of Execution. This Official City Plan, now presented, is such a Plan and Program. After long and searching study and careful elimination this plan undertakes to present for each problem the one most practicable, economical, and effective solution.

The rough upset cost of each proposed improvement for the first two periods has been determined and the attached trial budget of costs of capital improvements has been prepared merely to make sure that the Plan could be carried out as fast as needed without putting any undue burden on the taxpayer. This trial budget should be superseded by a definite 5 or 10 year capital budget prepared by an official Joint Budget Commission.

At the present time certificates of indebtedness to the amount of $1,400,000 are outstanding. Of this amount approximately $300,000 is to be repaid to the City from local benefit assessments. Therefore it will be necessary to put out a bond issue of about $1,100,000 in December to take up these certificates. It is probable this amount may reach $1,500,000.

Many public improvements are needed to-day and if we are to keep up with present needs it will be necessary to put out new bond issues after which it should be possible to pay for all further public improvements on a strictly "pay-as-you-go" basis, and at the same time continually reduce the outstanding indebtedness of the City.

This result is based, of course, on the obvious assumption that fair local benefit assessments will be imposed wherever the improvement warrants and that the state and county will bear their fair share of any public improvements which are manifestly of state or county value. It is greatly to be hoped that this City Plan will inspire many gifts and legacies, towards its actual execution, for the common good. Each private donation will serve materially to hasten the realization of the complete plan.

The various problems are taken up in the order of their urgency by periods, and with the exception of schools and playfields are listed alphabetically in the tabulated program.

1929-1930 IMPROVEMENT PROGRAM

Boston Post Road Relief

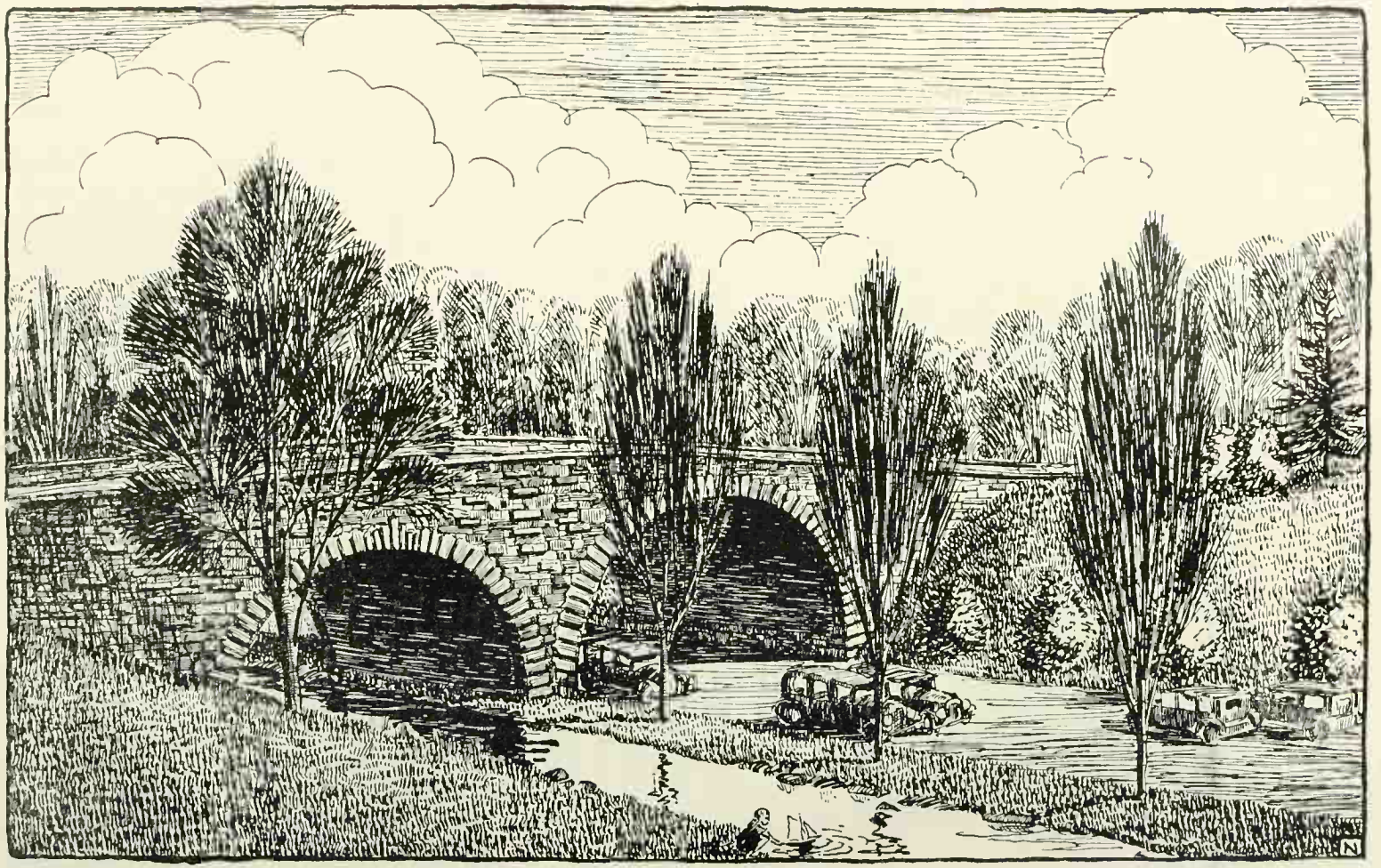
In the fall of 1928 traffic counts showed that on some days there were as many as 47,000 vehicles passing in both directions on the Post Road in New Rochelle. Statistics also show that traffic on the Post Road is doubling every four and one-half years. On that basis, this fall there would be 60,000 vehicles a day on the Post Road if it were not for such relief as has been given by the opening of the Hutchinson River Parkway.

The present roadway on the Post Road has already reached capacity at several corners in New Rochelle, especially at the corner of Echo Avenue.

The opening of the Hutchinson River Parkway through to Port Chester will obviously give material relief. However, at the rate of predicted increase still further overflow highways will be needed in the near future and, more particularly, immediate relief must be given during the process of widening the existing roadway on the Post Road.

This very obvious need has already led the State and the County Highway Departments to reroute much of the normal Post Road traffic to a system of parallel relieving streets. In order to do this, it is imperative and of immediate interest to extend Biltmore Avenue, through land that is now vacant, at least to Petersville Road, so that on this latter street traffic from the east can go north across the railroad tracks through Rochelle Park and thence into Winyah Avenue and Fifth Avenue and west along the Post Road into Echo Avenue and so on into Pelham Road. At best, of course, this is a temporary solution, because the poor location of an approach to Petersville Road bridge and the congestion of traffic where it crosses the Post Road from Petersville Road into Echo Avenue will cause difficulties that will be extremely serious within a few years. It should not cost the City more than $100,100, exclusive of County aid. Subtracting $40,000 for local benefit assessment, it leaves a net cost to the City at large of $60,100.

The worst bottle-neck on the Post Road is the stretch on West Main Street from Roosevelt Square to Weyman Avenue, now from 65 to 70 feet wide with a 40-foot roadway. It should be increased to an absolute minimum width of 86 feet, with a 60-foot roadway, the widening to take place on the south side of the street where there are relatively few new or permanent buildings that could be damaged by this widening. Anything less than a 60-foot roadway with two 13-foot sidewalks would cause such congestion along this stretch of the Post Road as to preclude the possibility of permanent business prosperity on this street. It is estimated that the total cost of this widening might be $847,000, of which at least $328,000 could be assessed locally and $30,000 charged to the State or County, leaving a net cost of $489,000 to the City.



HUTCHINSON RIVER PARKWAY BRIDGE AT MILL ROAD

West of Kings Highway, West Main Street can be readily widened from its present width of 66 feet to 100 feet and its roadway from 40 feet to 72 feet in width. A 100-foot width is essential to allow for future growth, as no parallel relieving street is practieable in this loeality. This would probably eost in the neighborhood of $426,-400, ineluding the new railroad bridge, of which $190,000 would normally be paid out of the tax budget. This would mean that the total eost to the City of widening West Main Street from Huguenot Street to the west line of the Westehester County Park Commission property might well be in the neighborhood of $679,000. This improvement is immediately imperative.

Parking Spaee

No one has to be told that parking space in the business center and around the railroad station in New Rochelle is hopelessly inadequate. That something must be done about it right away everyone agrees.

It is quite feasible to ereate parking space for some 300 additional ears around the station by removing various existing buildings and substituting a fairly broad plaza both to the north and south of the railroad station. The eost of this should be absorbed in part by the railroad and in part by the various properties in the neighborhood.

However, at best, this is only a partial solution of the problem. There are two practieable ways of securing additional parking space in the eentral business distriet. The first is by inereasing the number or width of the streets; the seeond is by creating parking space in the open or in public garages on land mostly in the eenters of deep blocks where at present there are few, if any buildings of any real value. A eanvass of the downtown distriet reveals spots in the eenter of the bloek, bounded by Lawn Avenue and Garden Street, for about 100 cars and between Lockwood and Sickles Avenues for about 130 cars. South of the railroad traeks there is space south and east of the Post Office for about 100 cars; and between Westehester Place and Main Street for about 100 cars. Then, between West Main Street and Pine Street and its extension, there are four possible spaces with an aggregate eapacity of 228 ears, while in five deep bloek centers, south of Main Street between Eeho Avenue and Pintard Avenue there is space for 365 ears; or a total of nearly 1,100 ears.

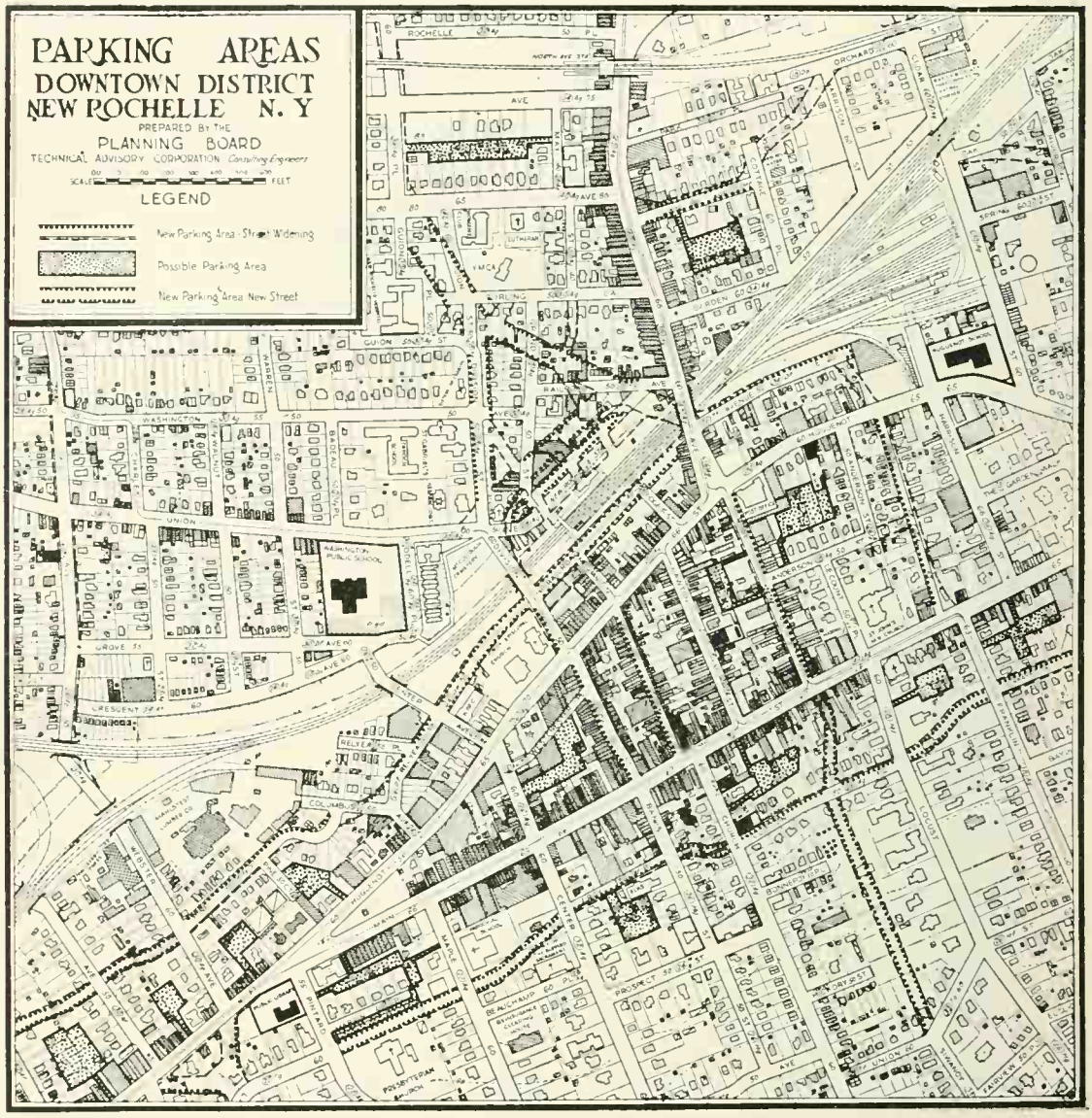
While it is not generally considered to be within the provinee of a city to aequire block eenter spaee for publie parking purposes, at least the City should give every encouragement to private enterprise to take advantage of these profitable opportunities while they still remain available, perhaps even to the extent of remitting taxes. The locations just mentioned are all shown on an aeeompanying map.

Another thousand extra ears ean probably be parked on the proposed new or widened thoroughfares in and near the eentral business district.

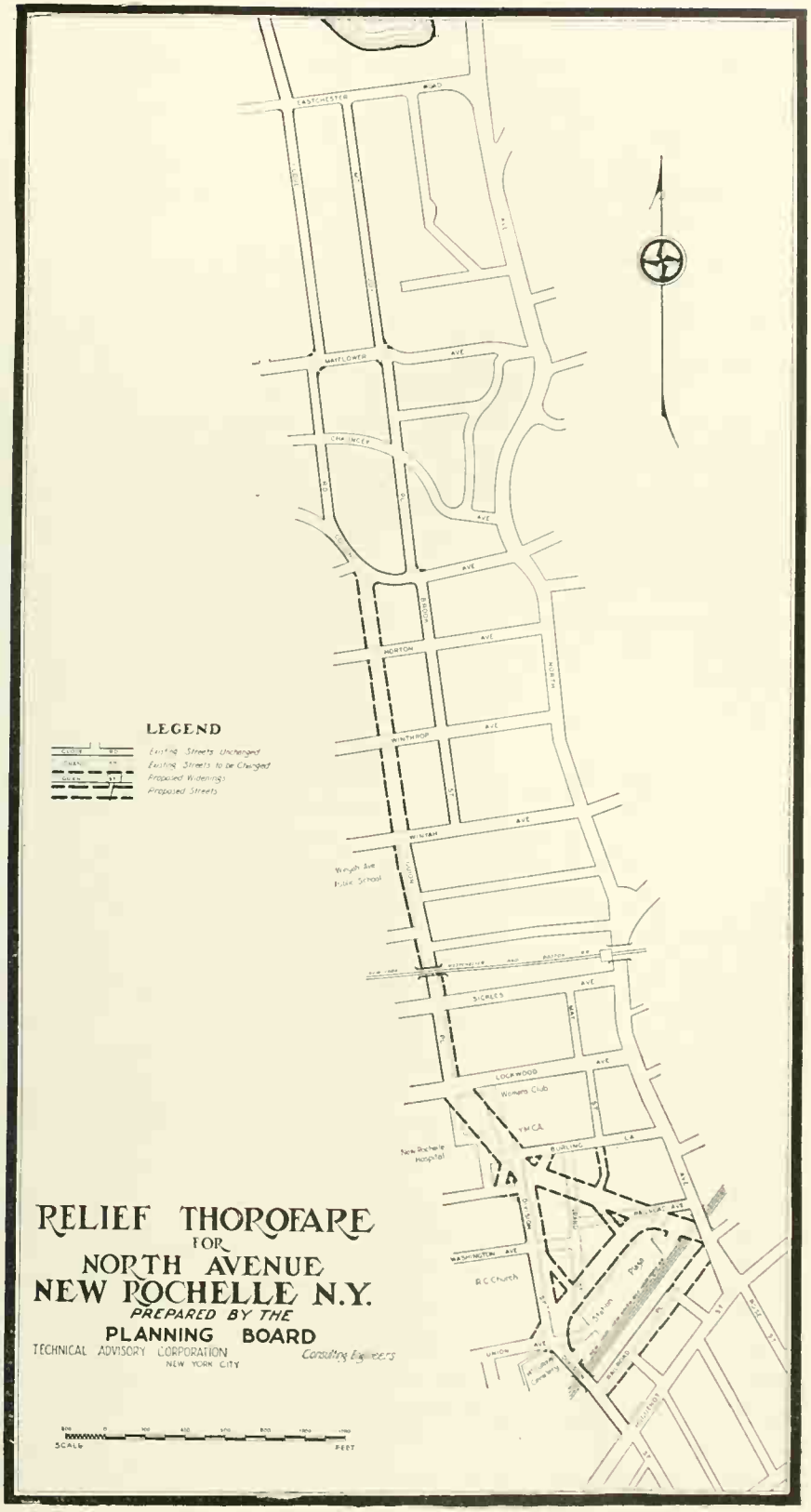
Relief for North Avenue

North Avenue should be repaved duriug this period, with the help of the county, from Eastchester Road to Huguenot Street to a maximum possible width. The City will probably be ealled upon to pay a net cost of $150,000 for this improvement.

North Avenue, at present the only north and south artery in New Roehelle, is rapidly approaching capacity as far as traffie is eoneerned, and the business area north



of Huguenot Street is deteriorating as a result. It is now recognized all over the country that when through traffic crowds a business street, local shoppers must suffer many inconveniences. There seems to be a general agreement among the traffic experts that north and south traffic in New Rochelle is certain to be three times as heavy, and probably four to five times as heavy, in 1950 as it is today. The population of New Rochelle is bound to increase very rapidly, especially in the northern areas of the city, and provision must be made for this new population to reach the railroad stations and the downtown business section. Unless something else is done in the very near future to relieve this condition, North Avenue itself will have to be widened, and at tremendous expense.


LEGEND
Existing Streets Unchanged
Existing Streets to be Changed
Proposed Widenings
Proposed Streets
RELIEF THOROFARE
FOR
NORTH AVENUE
NEW ROCHELLE N.Y.
PREPARED BY THE
PLANNING BOARD
TECHNICAL ADVISORY CORPORATION
NEW YORK CITY
Consulting Engineers
SCALE
FEET
EASTCHESTER ROAD
MAYFLOWER AVE
CHAUNCEY
AVE
HORTON
WINTHROP
WINYAH
Wm. Wyeth Jr. High School
SICKLES
LOCKWOOD
Women's Club
YMCA
New Rochelle Hospital
BUILDING
WASHINGTON AVE
R.C. Church
UNION
PARK

Very wisely and with broad vision, the City Council has authorized the Pine Brook Boulevard, which is being developed in a broad gauge manner, distinctly worthy of the City. With county aid and fair local benefit assessment the City will still have to pay about $744,000 to complete the grading and paving from Quaker Ridge Road down to Beechmont Lake. This improvement should be carried out at once and without fail.

On the west side of North Avenue, the possibilities of Webster Avenue as a relieving street would be greatly enhanced if it were extended north from Bon Air Avenue to the Hutchinson River Parkway and repaved all the way from Eastchester Road to the Parkway. This would probably cost about $270,500, of which $195,100 could be assessed locally, leaving $75,400 as the maximum net cost to the City. It is the only existing north and south thoroughfare that can be easily developed into a relieving street for North Avenue.

However, neither the extension of Webster Avenue nor the completion of Pine Brook Boulevard is going to prevent the inevitable widening of North Avenue unless a parallel relieving street in the immediate neighborhood can be worked out. An exhaustive study of the existing parallell streets near North Avenue indicates clearly that the only practicable alternative to the widening of North Avenue is the creation of a new relieving street a block to the west of North Avenue. The only feasible route for such a relieving thoroughfare would lead off from North Avenue at Calton Terrace, extend south along Calton Terrace to Calton Crescent, then continue in the same general southerly direction to Clove Road from Flandreau Avenue, along the west bank of Huguenot Lake. It would then fork at Clove Road, one branch extending south along the edge of the park to enter Mount Joy Place at Eastchester Road. The other branch would continue directly down Clove Road. At Coligni Avenue, Clove Road would be extended directly south to meet Guion Place at Winyah Avenue, then south along Guion Place widened to Division Street, where one branch would continue down Division Street widened and across Division Street Bridge, while the other branch would extend southeast to meet North Avenue at the New York, New Haven and Hartford Railroad Bridge. This would in every way make an ideal relieving street for North Avenue, as it would take the traffic directly from the railroad station and from the business center, across two principal bridges, north along broad streets, and well beyond any congested part of North Avenue before the through traffic would flow back into the avenue. Any other parallel route, near enough to be a real relief to North Avenue, would be utterly prohibitive in cost.

It is evident that the key to this relieving thoroughfare situation is the area south of Lockwood Avenue. To the north the situation is relatively easy to handle. It is estimated that the cost of these lower relieving thoroughfares, including the station plaza and ample new parking space for nearly a thousand automobiles, should cost approximately $2,477,100, of which at least $400,000 could be assessed back locally for benefits conferred, leaving a net cost to the City of $2,077,100. If this is not done, North Avenue will most assuredly have to be widened at a probable cost far in excess of this amount. Unfortunately, the widening of the North Avenue would create relatively little in the way of new assessed valuations, whereas the opening of these new relieving thoroughfares should create enough new assessed valuations to pay most, if

not all, of the interest and amortization on the bond issue involved. It is an opportunity of a generation because land values at present are relatively low in the district to the north of the railroad station and furthermore there are but few costly buildings in the way of this improvement today. Most of the other buildings have outlived their best usefulness or are relatively of small value.

Eastchester Road

Incidentally, to complete the circulationaround North Avenue and Webster Avenue, Eastchester Road from Webster Avenue to Pelhamville Road should be widened right away from 50 to 55 feet, and its roadway increased from 16 to 36 feet at a total cost of about $108,000, of which $60,000 is assessable, leaving a net cost to the City of $48,000.

A New City Hall, Station Plaza and Civic Center

The two most glaringly needed public improvements in New Rochelle are a new railway station and a new city hall. Both present ones are utterly unworthy of the city. Both are long since outgrown. Both are strikingly out of date. A new railway station must satisfy the following conditions:

1. It must be as near the center of the city as is the present station.
2. It must be as accessible from all main routes as it is today.
3. It must have ample space about it for loading and unloading and for parking.
4. It must have an attractive and worthy setting of verdure and of impressive buildings.
5. It must take into consideration a proper treatment of the depressed Pelham-Port Chester Parkway.
6. It should not interfere with the present costly freight yard development.
7. It should avoid valuable property now owned by active industries.
8. It should avoid any location in the heart of a residential district.
9. It should not involve too much cost for property acquired.

By these standards property to the east of North Avenue would be out of the question on account of its cost and the fact that it would destroy the existing vitally important freight yard which for the city's benefit must be maintained at any hazard. Any site still further to the east would be too eccentrically located and too inaccessible from most of the city's thoroughfares. This is too obvious to need argument.

Any location to the west of the present station site would be equally impossible on account of the expropriation of closely built up residential or industrial property, and also on account of its relative inaccessibility from most of the city's thoroughfares.

Therefore, by elimination, the new railway station should unquestionably remain in the general location of the present station with adequate parking space provided and a proper relationship worked out with the Pelham-Port Chester Parkway.

A new city hall should satisfy the following requirements:

1. It should be within a stone's throw of the center of activity and also of the center of population of the city.

2. It should be readily accessible by thoroughfares from all parts of the city without forcing most of those who use it to pass through the congestion of Main Street and Huguenot Street.

3. It should be in a relatively quiet location.

4. It should have plenty of space around it for a dignified setting.

5. It should, if possible, be located where it will be on the axis of various principal streets.

6. It should have ample parking space for automobiles immediately adjacent to it.

7. It should, by all means, be so located that it can group effectively with other public and semi-public buildings and not just be isolated in a corner.

8. It should be near the stations on both railroads.

9. It should be within a step of the principal business district.

10. It should normally be in the transitional belt, where business dwindles off into residence.

11. It should be on the side of the business center toward the future center of population of the city.

12. It should be where land values are relatively low, to permit the acquisition of adequate acreage.

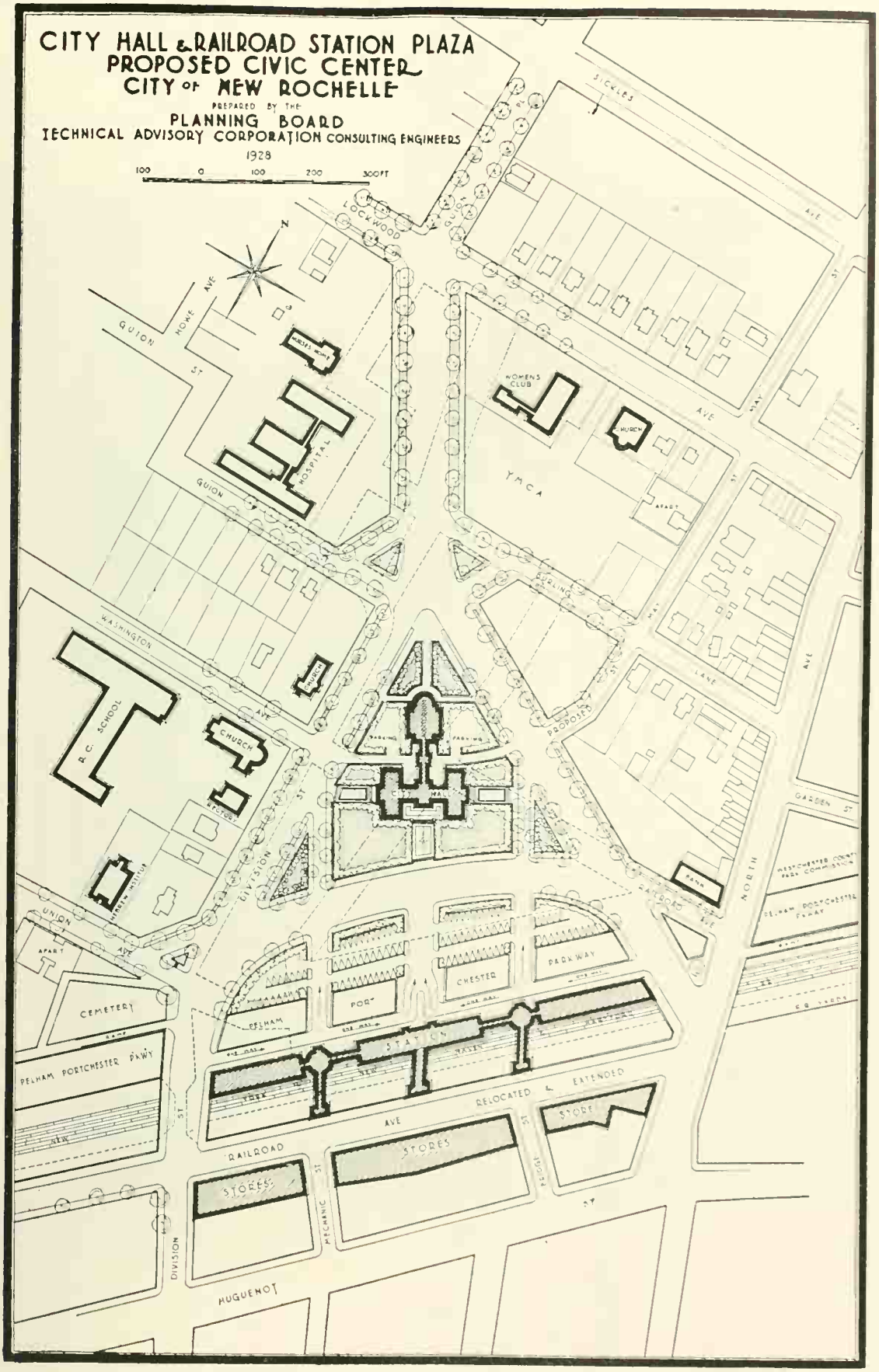
13. If possible, it should be so located as to pull back a retarded area and clean up a slum-tending condition.

14. It should be combined with other public improvements, such as thoroughfares and station plazas, so that the cumulative effect will be of the greatest benefit possible to the city.

15. It should, if possible, create new assessed values, which will bring enough additional revenue to the city to largely pay for the cost of the improvement.

With these standards in mind the principal sites which have been proposed for a new city hall were reviewed and given careful study.

In this study the question was, "Is it possible to find a site for the city hall that will satisfy all of the '15 points', and at the same time solve the station problem?" We are now convinced that it is entirely possible and quite practicable to solve both problems at one and the same time, and also to provide the much needed relieving thoroughfare for North Avenue, all at the minimum expense to the City. Furthermore, it is possible to create by this improvement new land values that should bring in, in new taxes, enough to pay the entire carrying charges and amortization on the improvement and possibly part of the maintenance as well.


CITY HALL & RAILROAD STATION PLAZA
PROPOSED CIVIC CENTER
CITY OF NEW ROCHELLE
PREPARED BY THE
PLANNING BOARD
TECHNICAL ADVISORY CORPORATION CONSULTING ENGINEERS
1928
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N
SICKLES
AVE
LOCKWOOD
GUION
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ST
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YMCA
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WASHINGTON
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R.C. SCHOOL
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CHESTER
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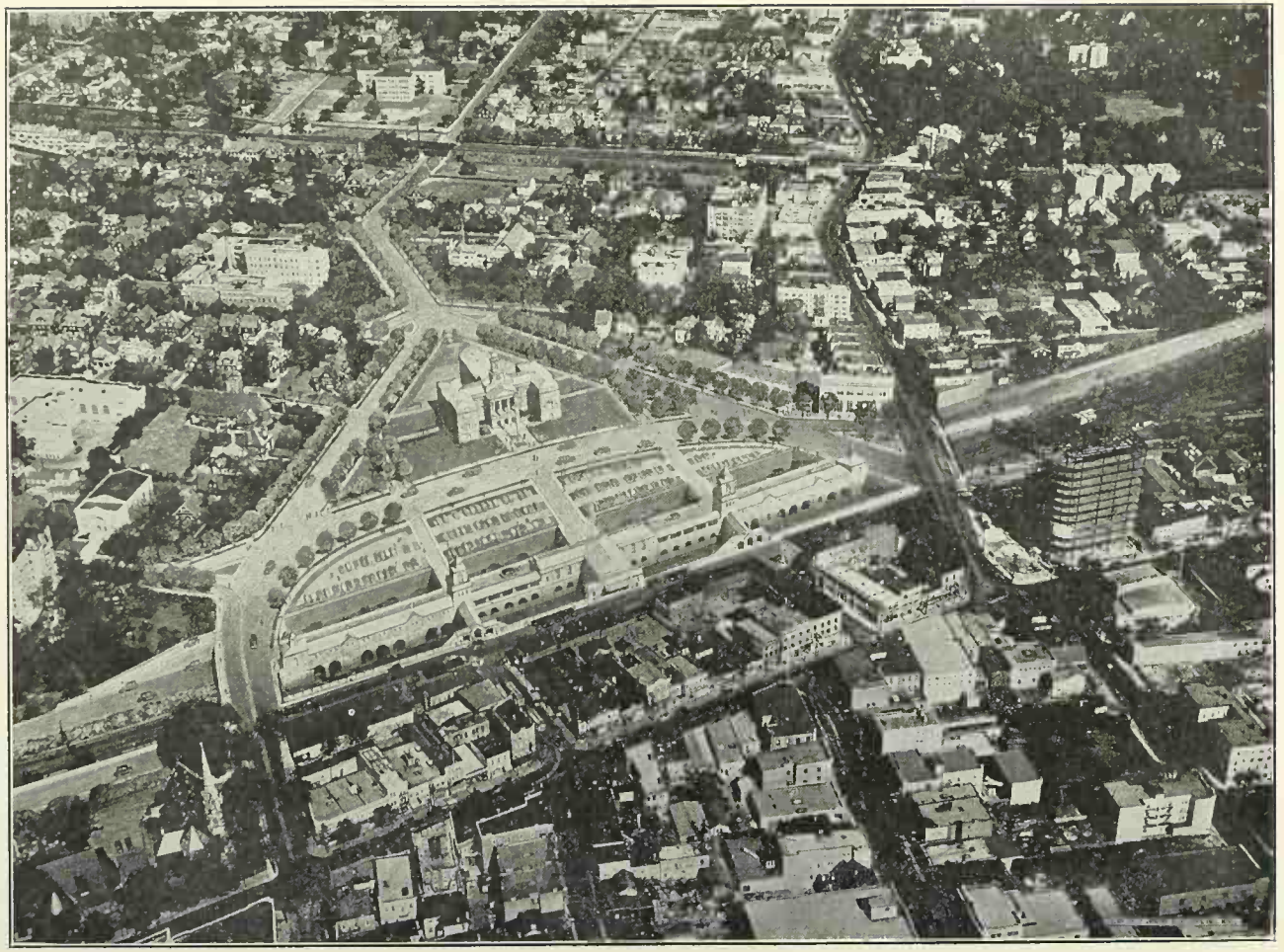


SITE OF PROPOSED CIVIC CENTER AS IT WILL APPEAR WHEN COMPLETED

SITE OF PROPOSED CIVIC CENTER AS IT APPEARS TO-DAY

By great good luck there exists an area adjacent to the railway station that can serve ideally as a station plaza, as a site for a complete civic center, including various public and semi-public buildings already existing, and which at the same time will provide the much needed relieving street for North Avenue, instead of involving the City in the enormous expense of widening the avenue.

We refer to the triangle northwest of the present railroad station, east of Division Street and southwest of the proposed new thoroughfare from Guion Place to the North Avenue railroad bridge.

Most fortunately there is only one costly building of any sort in the entire area that would be needed for the city hall, auditorium, park, automobile parking space and the new bordering thoroughfares.

This proposed civic center would provide splendid frontages upon it for the hospital, which incidentally could increase its building area by at least 50 per cent., and for the Women's Club, the new Y.M.C.A., three existing churches and modern apartment houses.

The proposed station plaza and civic center would change the outlook from the New Rochelle Station from being the meanest on the whole stretch of the New York, New Haven and Hartford to the noblest and most striking setting, and this could all be done at a minimum cost to the City. It would solve the traffic problem to and from the station. It would solve the parking problem amply. It would provide excellent stores directly opposite the station on both sides of the tracks. It would provide most satisfactorily for the eventual Pelham-Port Chester Parkway, which could be constructed beside and at the level of the railroad tracks. It would change the present unimpressive station region to one of the most attractive sections of the city. It should immediately double, treble, or quadruple land values in its neighborhood. In fact the moment this project became known land values jumped prodigiously.

It would leave the railway station with adequate approaches and parking just where it could be most readily reached from all parts of the city and surroundings. It would locate the city hall, a future auditorium, and all other prospective public buildings, not only near the center of the present business area but also in the very heart of the business district of the future. It would place the city hall very near the center of population, conveniently close to the station, and would make it, without the necessity of encountering the traffic of Main Street or Huguenot Street, readily accessible from all directions.

The civic center at the proposed location would necessarily be satisfactory for many decades in the future, no matter how the character of the city may change. It would provide a civic center on the one site in the city where the city hall and its surrounding public buildings would show effectively from all directions, especially from the railroad station and the station plaza.

It is the one site in the whole city where a number of public and semi-public buildings happen to be so located near together that they contribute to the cumulative effect of a glorious civic group.

This opportunity is unique in the history of New Rochelle. No such chance to create a worthy setting for its public buildings and station has ever presented itself in the past, or is ever likely to do so in the future, for unless this opportunity is

taken now, costly structures will be erected in the near future that will make the acquisition of an adequate site almost prohibitive in cost. Cooperation with the State and County Highway Departments, with the railroad, with the County Park Commission, and with public spirited citizens should keep the actual cost to the City of everything that it needs for a city hall, park setting and parking space, and for the building itself within a total sum of $1,975,000.

No other location in the city even begins to offer the combination of advantages and the surprising lack of disadvantages that this site offers. It is our great opportunity of the century.

Rose Street

During this period the widening and extension of Rose Street will be necessary. Rose Street should be widened and extended as the logical southern continuation of North Avenue to Clinton Place. When this is undertaken the roadway should be made 40 feet wide and the right-of-way 66 feet wide throughout. The total cost of this improvement will probably be $1,571,000, of which at least $921,600 could be assessed locally and $35,000 paid by the County, leaving $614,400 as the net cost to the municipality.

Division Street Widening

Another important link after Division Street has been widened north of the railroad tracks is to continue the widening south of the tracks to Huguenot Street by widening the right-of-way 10 feet, with a 40-foot roadway. This would probably cost $31,200, of which two-fifths could be asssessed back locally.

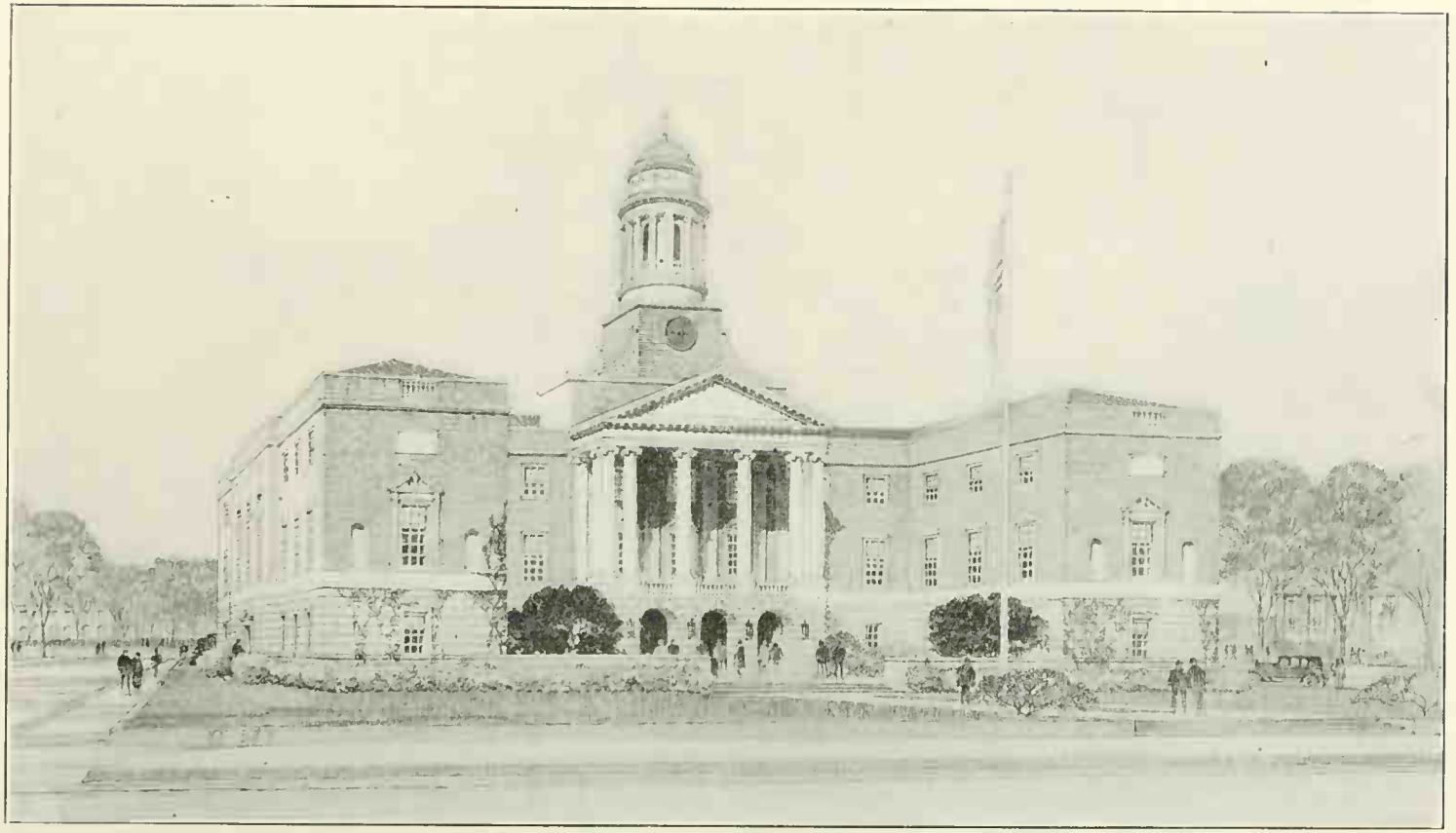
Playgrounds

New Rochelle is strikingly weak in playground areas. At present there are only 23.5 acres of actual play space in the whole city, including play space in school yards and public parks.

This means that there is only about one acre to every 2,000 inhabitants, whereas good modern practice would demand about four times that area. The proposed program calls for at least 75 acres. Owing to lack of available funds, any real drive on the playground situation will have to wait until after 1930. However, as a first step the action of the School Board in acquiring a new site directly north of City Park at a cost of $90,000 and its further proposal to acquire 4.8 acres for a Weyman Avenue School and playground, at a cost of $220,000, and the Glenmore Drive School Site, at a cost of $133,000, is most commendable and should provide some immediate relief to what has become a most serious situation. It is the accepted policy throughout the country today for school boards to acquire and develop playground space for children of school age. Most fortunately the School Board of New Rochelle has in its recent and proposed acquisitions nearly lived up to the recognized standards in the provision of playground space.

Seventh Avenue Playfield

Another playfield should be so located as to provide recreation facilities for the very densely populated area west of North Avenue and between the New York,



PERSPECTIVE OF PROPOSED MUNICIPAL BUILDING

Westchester & Boston and the New York, New Haven & Hartford tracks. Two alternate sites have been chosen. One is the low undeveloped area, just north of the Columbus School playfield. This will cost about $160,000 of which a portion could well be assessed locally.

Schools

It is almost impossible for the School Board, with the best of good will and intention, to keep up with the extraordinary growth in the number of children of school age in the city. However, at the present time they are making a strong drive to meet the present situation, even if there are not funds available to build ahead for the future. In this connection it should be noted that the proposed program, which includes the Hardscrable Road School, at a cost of $450,000; the Weyman Avenue School, at a cost of $700,000; the proposed Glenmore Drive School at a cost of $385,000; and the six room addition to the senior high school at a cost of $80,000, or a total of $1,615,000 for buildings, plus $443,000 for land, is an inevitable expense for which due allowance must be made in any public improvement budget and in any bond issuing program. There seems to be no question but that the sites are adequate and well chosen, and that the location of the proposed buildings should prove permanently satisfactory. School building must go on.

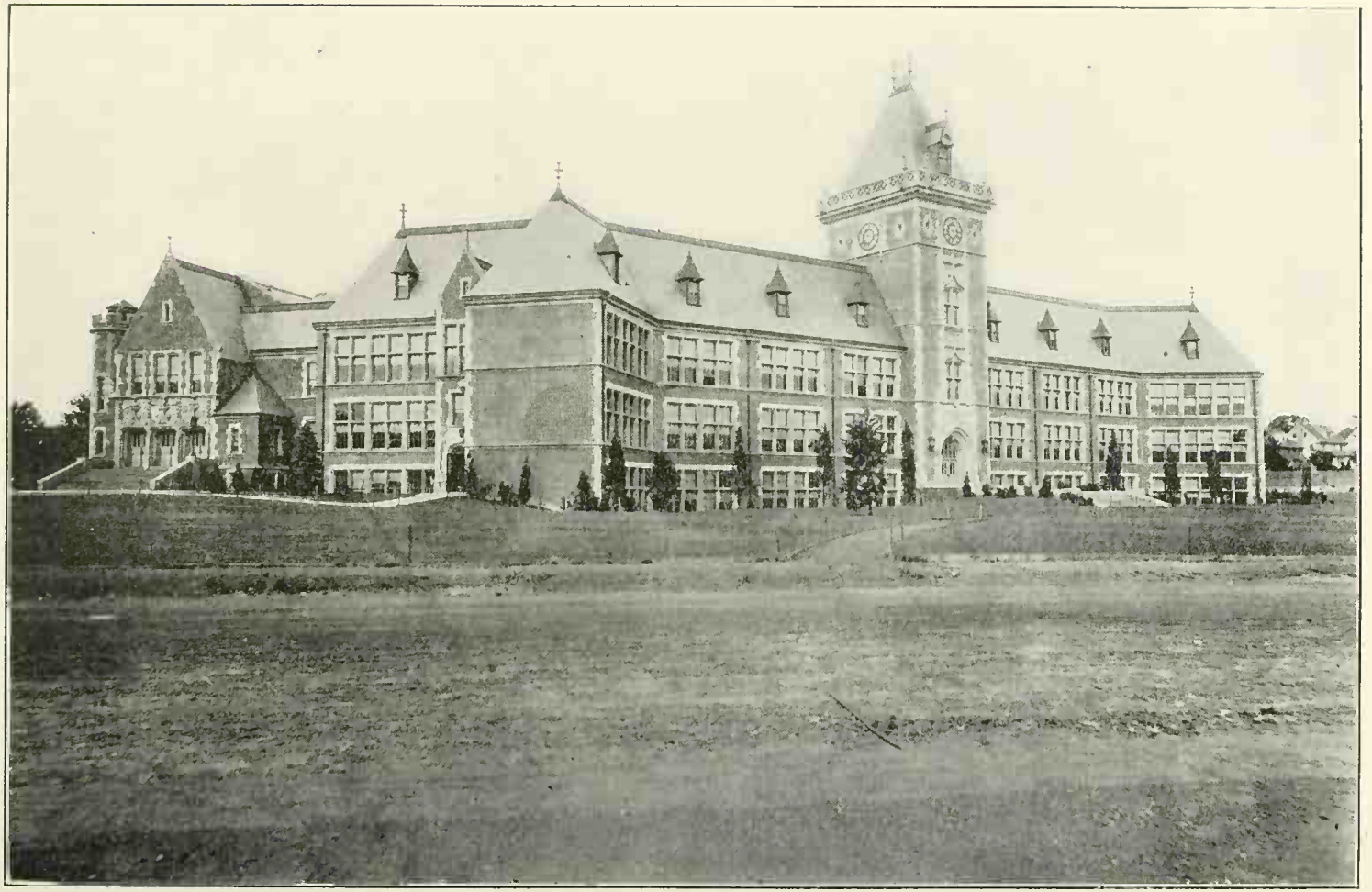
Adoption of an Official Map and Platting Regulations

New Rochelle grows, every city grows, by the erection of new buildings and the dividing up of large plots into building lots. This is mostly done by private capital and private initiative. The private developer naturally lays out his lots and streets and erects his buildings so as to get the largest possible return on his investment. At best, he is hardly in a position to consider the City's interest and no matter how public-spirited he may be, it is rarely possible for him to know how to improve his property in the City's interest. The City alone can do that.

Most unfortunately, up until quite recently, the City has had no adequate authority in law for controlling or directing the development and improvement of private property. It has been forced to accept most of the whim and caprices of the individual subdivider and builder. However, first the City was granted the right by the legislature to lay down a building code and fire limits. This provided a means for controlling at least the construction of buildings and assuring some protection against the spread of fire.

Then about fifteen years ago New York cities were granted the right to enact building zone ordinances which would protect property against the harmful use of neighboring property and do it differently in different parts of the city, according to local conditions. New Rochelle early took advantage of this authority, and in its building zone ordinance is providing adequate protection to property;—but at best this is only part of the story.

Neither the building code nor the zoning ordinance gives any control over subdivision plats, streets widths, or lot sizes; nor do they make any provision for buildings lines and the possible widening or extension of streets in order to meet traffic congestion. However, in 1926 the State Legislature in its wisdom passed what is called "The City Planning Law" whereby any city on the recommendation of a planning board can adopt an "Official Map", on which are shown not only all existing legal



SENIOR HIGH SCHOOL

streets but, in addition, all desirable future highways or widenings of existing streets that will probably be needed to take care of future traffic. It is provided that this map shall also show existing and proposed parks and parkways, and it is expected, too, that an "Official Map," as thus prepared, would be accompanied by platting regulations that would maintain proper standards for the development of subdivisions.

The law provides, once an Official Map is adopted,—and it would be adopted under police power without compensation, the same as in the case of a zoning ordinance or building code,—that the City would have the right to refuse all public services and utilities to any property that failed to conform after the adoption to the Official Map, and the City would even have the right to refuse building permits for any building proposed to be erected in the bed of any existing or proposed highway as shown on the Official Map.

For the first time in history, this statute gives New York cities a very real control over the development of private property.

The City Council, over a year ago adopted an existing map of the city as its Official Map, and the Planning Board adopted platting regulations. This automatically gave the Planning Board the authority to pass on all subdivision plats.

This step was excellent as far as it went, but the Planning Board and City Council were the first to realize that it was quite inadequate in that it gave them no real control over subdivision layouts in undeveloped sections or areas where there were no streets indicated on the "as is" Official Map.

Therefore, the Planning Board set to work to see what would be needed in the way of additional highways or widenings of existing highways in order to relieve present day traffic and to provide adequately for the traffic of the future. The result was the amended Official Map which was presented to the City Council early in June, 1929 and officially adopted by a unanimous vote of the City Council on July 2, 1929. Probably no one action that the Council has ever taken will do so much as this to assure a great future for New Rochelle.

This map has been studied with exhaustive care and every endeavor has been made to provide adequately for the future and yet at the same time avoid unnecessary expense to the City and unnecessary trouble to private property owners. The plan provides for an eventual series of six or seven north and south thoroughfares and at least 12 to 15 east and west thoroughfares. They, together with the parks and playfields, will be taken up in turn in the improvement programs which follow. The adoption of this Official Map does not commit the City to any expense or any definite program, but it does evidence a probable intention on the part of the City to conform to a carefully worked out plan for the city's development, designed in the common interest.

The platting regulations and rules of procedure adopted by the Planning Board, which are based on the best current experience throughout the County, are set forth in Appendix V. These rules enable the City to more effectively control subdivision plats for the common interest and further raise the standard of play layout.

Summary Program 1929-1930

As is seen by the accompanying budget table, the total expenditure for streets during 1929 and 1930 should amount to $4,475,700. The proposed city hall with its land should cost about $1,975,000. Three school buildings and three new school sites

with the additional six rooms for the senior high school should cost $2,090,000. In addition there is already a commitment of $400,000 for sewers and of $100,000 for local paving, making a total cost for the period of $9,160,700, with $120,000 for a new playfield. The balance between current revenue and current expenses during the period should amount to $586,551.

If all the above improvements are completed within this period, new bond issues will be necessary; but it is extremely improbable that all improvements will be completed.

Other Non-Financial Action by the City Council

There are several other matters that involve no expense—matters which can be taken care of merely by the passage of an ordinance or resolution by the City Council, which at the same time can be of the utmost usefulness to the City. It is most strongly urged that the Council should give these matters their serious attention within the next six months or a year at the outside. In fact, so important are these matters that the whole City Plan can be seriously marred in its execution if the recommendations that follow are not put into effect.

Signs Overhanging Streets

Advertising signs, which project out over the sidewalk and other projections from buildings over the public street should be drastically limited in their encroachment to not over one foot, or 18 inches at the outside. There is nothing that makes a city's streets appear so tawdry, so down-at-the-heels, so "small town" as a confusion of signs extending over the sidewalks. On the other hand, there is nothing that makes a street look more orderly, or more businesslike than a clean street with advertising signs in their proper place. Anyone who has ever taken the trouble to compare the effect of a street before and after the removal of projecting signs must be convinced that the whole character of the street is vastly improved by the change. Several cities have taken this important step on the principal streets and in every case the store owners testify that it has proved a help rather than a hindrance to business. Therefore, just in the interest of good business, if nothing else, the City Council should by all means amend the building code so as to keep back projecting signs to one foot or, at most, 18 inches projection from the building line, at least on the principal business streets.

Billboards and Advertising Sign Boards

Billboards and advertising sign boards are already successfully prohibited in all residence districts by the zoning ordinance. The construction of billboards and sky signs is controlled by the building code. Nevertheless, in the business and industrial districts an otherwise attractive street is often utterly spoiled by flagrant billboards and sky signs. It would add immensely to the appearance of business streets if billboards could be kept down to the standard size of 14 feet high by 25 feet long and could be set back at least 5, or preferably 10, feet from the street line. It would also help greatly if sky signs were limited in size. All of this can be done by amendments to the building code or to the zoning ordinance, such as have been adopted in various other communities.

Street Encroachments

The encroachment of stoops, areaways, galleries, low awnings, showcases, kiosks, newsstands, and gasoline pumps over the sidewalks should be eliminated wherever they interfere with pedestrian traffic or clutter up the street. This action should cost the municipality virtually nothing. As a matter of fact, they never should have been allowed to locate in the street in the first place, as they have no legal right there. With the many narrow sidewalks that exist in the downtown business streets of New Rochelle, it is highly important that encroachments should be eliminated drastically and immediately.

Removal of Street Poles

Poles should be removed and wires buried in conduits as rapidly as practicable, especially throughout the central business section of New Rochelle. The City has already made a good start in this direction on Main Street, but the work has not proceeded as rapidly as it should in a city the size and importance of New Rochelle. There can be no question on the part of any thinking person that the removal of poles and wires adds enormously to the appearance and dignity of streets. The City Council should insist that the public utilities remove poles and wires for a distance of at least two miles each year, and that without fail.

Street Fittings

Street lighting fixtures, fire alarm boxes, police call boxes, letter boxes, hydrants and other street fittings can improve or spoil the appearance of the street. If they are just put up thoughtlessly without any attention to their appearance, they can make the street look like a neglected back yard. On the other hand, if fixtures and fittings are chosen wisely and with taste—and fortunately the supply catalogues are full of excellent designs today—it is entirely possible to make the street fittings a real asset and a distinct addition to the "street picture." Very fortunately, the City has shown a distinct improvement in its choice of street fittings of late and is to be heartily commended on this account. If the same scrupulous care is applied throughout the city to all street fittings, New Rochelle streets will become something to be proud of.

Street Name Signs

It is surprising how much a small thing like street name signs can do to make or mar a community; yet if the passer-through cannot find street names readily, he carries away a bad impression of the community. Every city owes it to its visitors to make it easy for them to find their way about. Furthermore, street name signs should be legible at a distance and should be permanent and attractive in character, so as to harmonize with the rest of the street fittings. A good street name sign or a good street fitting, well designed, costs no more or at least immaterially more than a poor sign or fitting. The policy that New Rochelle is now using with regard to street name signs should certainly be extended throughout the community just as fast as practicable.

Street Trees and Grass Borders

The planting of street trees and their proper maintenance should be encouraged by every practicable means. Nothing makes a residential street, or even a business

street, more attractive and more desirable for less cost than good street trees. New Rochelle's fine old trees are now disappearing rapidly. They have almost entirely disappeared on the business streets, and they are going rapidly on many residential streets. Unless the existing trees are properly cared for and unless new trees are planted generally in the near future, New Rochelle will rapidly become just a rubber-stamped town, a desolate monotonous waste of bricks and mortar; scorching in summer and gale-swept in winter.

Wherever roadways have to be widened on account of increasing traffic, and it is thought that the existing large trees must be cut down, supposedly to provide for this widening, there are in practice several ways in which the crime can be avoided. In the first place, it is often feasible to prohibit parking and stopping on one or both sides of the street, thereby leaving the whole width across the street between the trees free for moving traffic. It is again often possible to create a parallel relieving street, thereby avoiding the necessity of widening the street at the expense of the fine trees. If neither of these is possible, it is entirely practicable to create hard earth alcove between the trees which would serve as parking places for automobiles. These parking alcoves would drain down to the gutter, which would remain at the old location just outside the trees.

It is most interesting to note that the County Board of Supervisors has just appointed a County Forester whose duty it is to try to save all the good trees along the county highways as they are widened.

A curious and extraordinary idea has spread through American cities that trees harm business, so much so that the first thing that most developers do in putting up new stores is to ruthlessly cut down any fine old trees in front of the stores. There seems to be a feeling that the very presence of the trees keep people from coming to trade at the stores, and yet some of the finest business streets in the world are bordered by beautiful trees, of which perhaps, the most notable examples are Washington and Paris. Extensive inquiry has failed to discover a single shopkeeper in those cities who finds that the trees in front of his store harm business. On the contrary, they are convinced that the trees attract business, especially in summer on account of their welcome shade. Of course, on narrow streets with narrow sidewalks there is rarely room for trees, but on the wider business streets there is every reason for encouraging them.

It is urgently recommended that the Park Department should be given every facility for the planting and maintenance of street trees, and that it should be in a position to give material encouragement to abutting property owners to plant and maintain trees.

Street Architecture

The Fifth Avenue Association in New York has set a good example of what a getting-together of property owners and lessees along a street can do to improve the character and appearance of their streets. It is true the Association has no authority under law to enforce any property owner to improve the design or character of his building, but by the force of public opinion and by "moral suasion" they find that few dare to disregard their counsels. The result everyone knows. This idea of street associations with their standards of architectural harmony is being copied on

a number of streets throughout the country and could certainly be applied with excellent effect along Main Street, Huguenot Street, North Avenue, and Rose Street in New Rochelle. The City should certainly do everything it possibly can to encourage the creation of such street associations.

Art Commission

Some years ago, New Rochelle apointed an Art Commission whose duty it is to pass upon the design of all public buildings and all structures in public streets and on public lands including all street fittings and fixtures. In every city where art commissions are now in effect they are finding that they are not only of the greatest help in improving the appearance of public buildings and structures but that they are actually serving in many cases to avoid unnecessary cost. The best design is often the simplest design from which unnecessary ornament and detail has been eliminated. In any case an art commission has infinite possibilities for adding to the beauty of the city without additional cost. The New Rochelle Art Commission is doing a most useful and important work which should receive the active support of every thinking citizen.

There are various buildings and sites of real historic or scenic interest in New Rochelle that should be conserved and featured by every practicable means. Fortunately certain interesting historical buildings have already been effectively conserved by local societies, for which they deserve the unstinted thanks of the whole community.

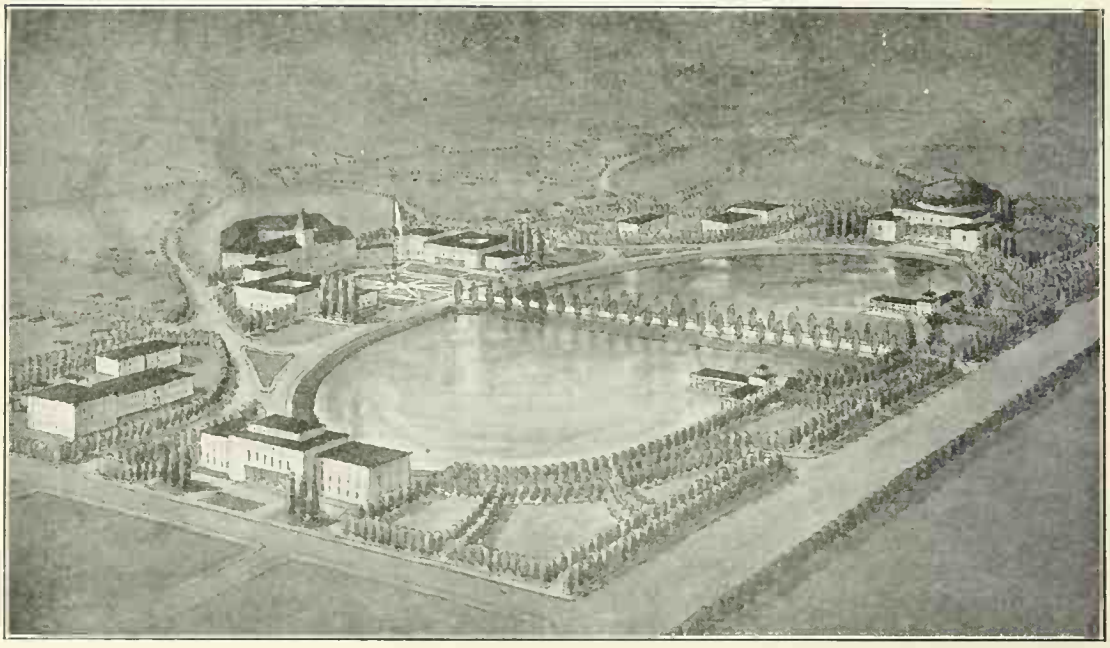
Neighborhood Business Centers

The typical local or neighborhood business center is a gronp of nondescript stores at the cross roads of two principal traffic streets. In the old days of the horse and buggy this local business center was unobjectionable, except that it usually lacked dignity. To-day, however, with our one or two automobiles to every family the neighborhood business center presents a most acute problem, for it becomes dangerous to life and limb on account of the intersecting streams of traffic doubly confused by parking in front of the stores. Again, from the standpoint of the clients, the problem of finding a place to park near the stores is becoming every year more serious.

An accompanying sketch indicates a practicable way of solving the problem. It can be done by setting the stores back and providing a special parking space in front of the stores off of the main highway. At the same time the business area can be so surrounded by trees and planting that the bordering residential areas will be protected against the business zone. It is believed that in this way, and this way only, can both the parking problem and the zoning problem be solved. It is, therefore, recommended that this method be brought to the attention of the subdividers and that in any new local business center the city should insist on some such layout as this.

An Auditorium and Memorial Hall

Some day New Rochelle is going to need an auditorium of sufficient capacity to accommodate an appreciable proportion of the community at one time—a hall that will seat from 5,000 to 10,000 people. It is also going to need a war or other memorial, as time goes on. Whether such a hall or memorial should be built publicly or privately is an open question. No allowance for such a building has been made in the budget,



PROPOSED CULTURAL GROUP AT HUGUENOT LAKE INCLUDING MUSEUMS AND AUDITORIUM

but it is believed that such a building can be located as a part of a cultural group on public property already owned by the City near the high school. The suggestion for such a "cultural group" is shown in the accompanying sketch. Such a group could be made a great asset to the community—something that would be talked of all over the country. It could be made a real center for the cultural life of the community. It should be kept constantly in mind against the day when the problem may become active.

A Public Museum and Art Gallery

The time is coming when New Rochelle will have a public museum and public art gallery. It is to be hoped that they will be the gift of some generous citizen. There is no question but that they will add immensely to the cultural opportunities and enjoyment of the community. When such a museum or gallery is about to be built, there is everything to be gained by locating the building or buildings in the "cultural group" about the high school, as suggested in an accompanying sketch. It is recommended that this possibility also be kept in mind.

Open Air Theatre and Community Center

It has been suggested that an open air theatre be created on the north slope up from the lake in front of the high school. As a matter of fact the topography, the setting, and the noise of the passing thoroughfares do not lend themselves to an open air theatre on this site, attractive though it might be. However, such a theatre is highly desirable. Similar theatres have proved of the greatest use and enjoyment in communities where they exist, as, for example, in Eden Park in Cincinnati. A study of the various possibilities indicates that the ideal location for an open air theatre and

PROPOSED OPEN AIR THEATRE AND COMMUNITY CENTER

community center would be in the proposed park, just west of Pershing Avenue, at the west end of Coligni Avenue. An accompanying sketch shows the possibilities of such an open air theatre and community center. It is true that no allowance has been made for this in the budget other than the general allowance for the acquisition and improvement of this park, most of the land for which now belongs to the Westchester Park Commission. It is seriously proposed that this should be developed by popular subscription and be made truly a community endeavor. If the women's organizations of New Rochelle would take it up, it could easily be carried through to completion within a few years and would undoubtedly prove a wonderful asset.

Appointment of Joint Budget Commission

The trial budget for a seven year improvement program as presented in this report is at best rough and tentative. It cannot be expected to serve except as a general guide and check, but it must suggest to every reader the urgent need of an official Joint Budget Commission, which could lay down an authoritative five, or preferably ten, year budgeted program for all public improvements. It would do the same thing for capital expenditures that the present city budget does for current administrative expenditures. It is recommended this Joint Commission should include representative citizens, a member of the School Board, the fiscal officers of the City, and a member of the Planning Board.

The Commission would have to consider the desirable allowance each year for administrative expenses as well as the debt service charges on capital improvements. It would be a clearing house for everything pertaining to municipal finance and should prove of inestimable value to the community. The recent experience of White Plains, Schenectady, of Detroit, of Cincinnati, of Dallas, of St. Louis, and of Dayton has proved the outstanding value of such a Budget Commission. If nothing else is done during the next year, it is most vital to our welfare that such a Commission should be appointed with all requisite authority.

A Citizens' City Plan Committee

No city plan is any stronger than the force of public opinion behind it. The best city plan in the world is no better than the paper it is written on unless the public is actively backing it. In every case where city plans have been most successful in execution there is a Citizens' City Plan Committee that is actively and constantly following it up. By all means there should be a Citizens' Committee in New Rochelle, composed probably of representatives of all of the local improvement societies and general civic organizations, of men and women interested in the City Plan. Such a committee should be encouraged to come forward with constructive suggestions for improving the plan and in turn the committee would serve as a watch dog to assure continuity of policy and to prevent unwarranted departures from the plan. A Citizens' City Plan Committee should be created immediately, preferably cooperatively.

Regional Cooperation

The problems of the communities along the Boston Post Road and the Sound Shore are surprisingly inter-related and inter-dependent. In each of the Sound Shore communities questions are constantly arising that cannot be solved by one community alone. They have a common stake, and they will stand or fall together. There is

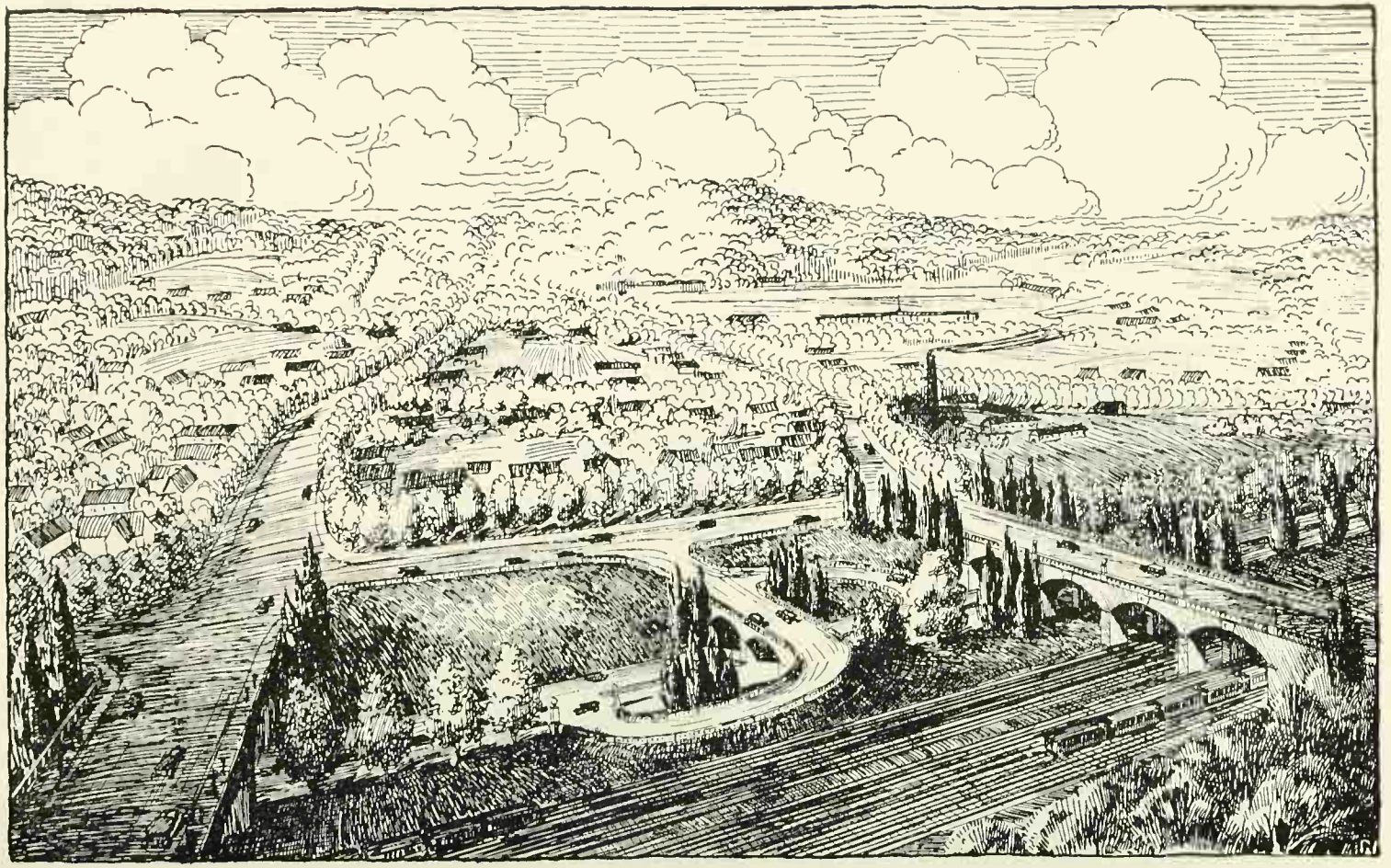
everything to be gained by cooperative study of their common problems. To this end the Boston Post Road Association is rendering a most useful service. Cooperation on the part of the New Rochelle Planning Board, the City Council, and the Citizens' City Plan Committee with the work of the Boston Post Road Association should be of the utmost use to all.

The relation of New Rochelle with its neighbors does not stop with the Sound Shore. In fact, Westchester County as a whole is becoming more and more of a close-knit regional unit. Despite the splendid work which is being done by the County Board of Supervisors, the Highway Department, the Park Department, the Sanitary Sewer Commission, and other agencies, there is today a crying need for a County Planning Commission, which would serve as a clearing house and coordinating agency for all development and improvement work throughout the county. New Rochelle has everything to gain, not only by cooperating with the work of such a commission, but by insisting now upon its immediate creation.

The Regional Planning Association, the logical outgrowth of the Regional Plan of New York and Environs, exists to coordinate the planning endeavors of the entire metropolitan area. The active cooperation of New Rochelle in this most important undertaking will be of the utmost service to all.

City Planning Education

City Planning has to be advertised. Because of the many interests that constantly demand their attention, few citizens are going out of their way to find out what the City Plan is all about unless it is brought forcibly and attractively to their attention. As a first and most important step in this direction, it is imperative that this report should be attractively printed and widely distributed so that everyone who might be interested will have a copy in his home, so that copies would be available in the high schools for use in civics classes, and so that the report will be available for discussion in clubs, societies, and leading offices throughout the community. The Planning Board has already accumulated a large number of attractive lantern slides and exhibits which should be put to constant use before public-spirited groups. Pertinent news articles of human appeal should appear currently in the newspapers and in other printed magazines, or pamphlets. In other words, every means of publicity should be used to make the City Plan the citizens' plan, in fact as well as in word—a living thing and an inspiration to all.



PROPOSED BRIDGES FOR PETERSVILLE ROAD AND MILL ROAD
WITH CONNECTION TO PELHAM-PORT CHESTER PARKWAY

Pine Brook Boulevard and Its Extension

The most urgent problem for the five-year period starting with 1931 is to continue the Pine Brook Boulevard by extending it north from Quaker Ridge Road to Stratton Road. This implies the further completion of Pine Brook Boulevard itself for a length of 3,800 feet at a probable cost of $665,000, of which one-fifth could well be assessed locally and part of the remainder, that is, at least $70,000, charged against the County as it is a County thoroughfare. This leaves a net cost to the City of $462,000. The need for this can hardly be questioned by anyone.

The extension of Pine Brook Boulevard to the south has been given a great deal of study. At first thought the easiest outlet might seem to be down the unopened street along the west side of City Park leading from Beechmont Drive into Potter Avenue. However, this brings in some very serious questions of grade and of outlet which render it impracticable.

Pine Brook Road presents one outlet, but one which is complicated by a particularly bad double jog at Fifth Avenue and again at Rockland Place. It is quite feasible, however, to cut off this latter jog and get a direct connection diagonally from Pine Brook Road into Rockland Place at an easy grade. However, this route does not provide any adequate southern outlet into Petersville Road or into Biltmore Avenue. Furthermore it means ascending and descending several long, steep grades.

The only remaining solution and, in fact, the only practicable solution of the problem is to continue Hardscrable Road down into the head of Ashland Street, and then southeast following the valley bed across the corner of East Place and Potter Avenue Extension down across the southwest corner of City Park into Mill Road, widening the latter and taking out the bad jog in it with the eventual building of a new bridge over the railroad tracks from the southern end of Mill Road into Biltmore Avenue at Canyon Place.

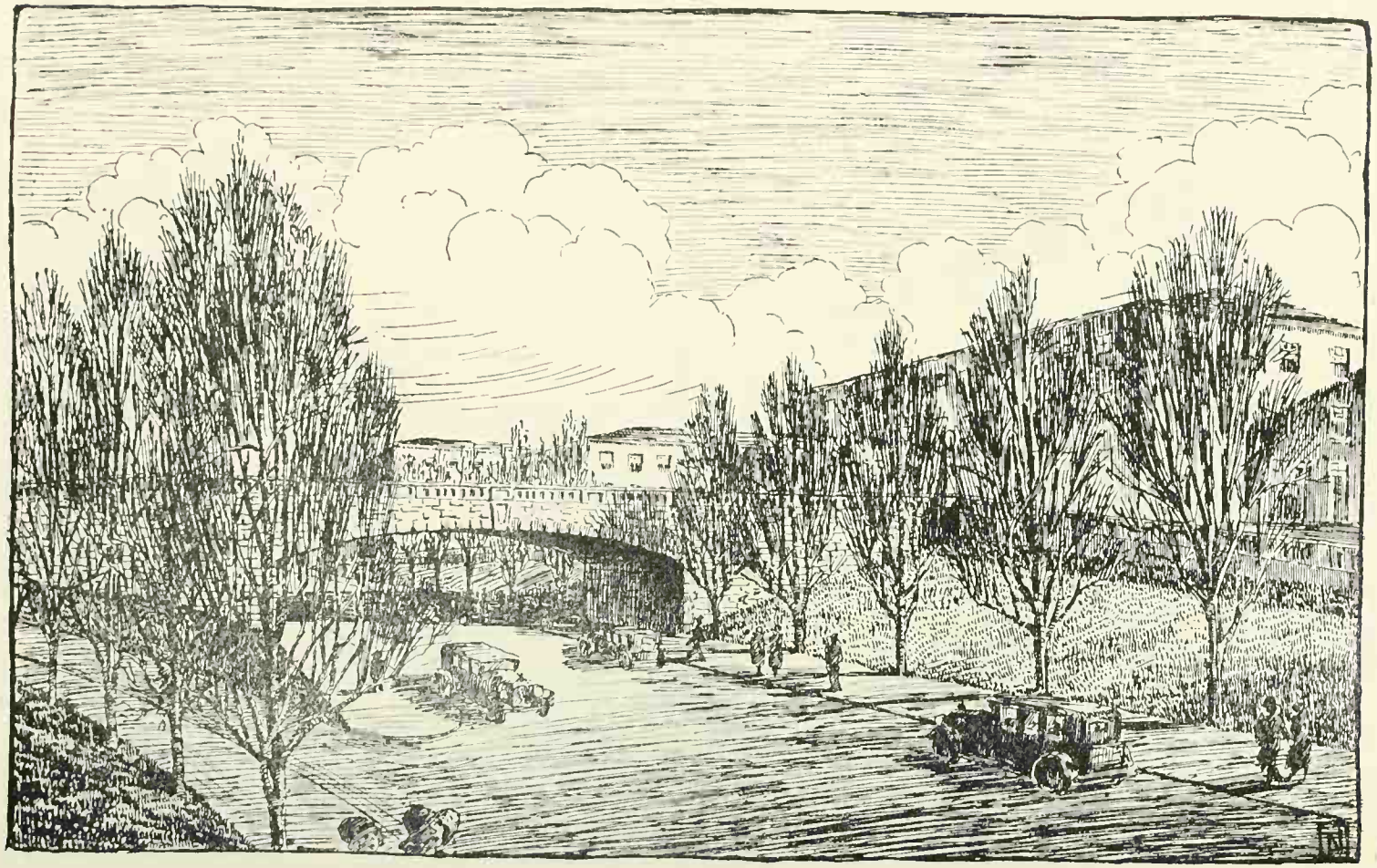
Another fork of this same southern outlet would extend from the corner of Potter Avenue Extension and East Place down Potter Avenue widened and across the existing Petersville Road bridge. Both of these forks—the Mill Road and the Potter Avenue—would have direct access into the eventual Pelham-Port Chester Parkway.

The first step, that of widening Potter Avenue and extending it to Chatsworth Place, extending Ashland Street to Hardscrable Road and widening Hardscrable Road to Beechmont Drive, should cost approximately $158,100, of which $56,000 could be assessed locally, leaving a net cost to the City of $102,100.

Pine Brook Boulevard will never be effective until this southern extension is completed. It should certainly be undertaken at the earliest practicable date.

Petersville Road and Potter Avenue

Petersville Road is the obvious connection from Pine Brook Boulevard to the Boston Post Road and the logical outlet from Biltmore Avenue to the Boston Post Road. It is now only 50 feet wide with a 30-foot pavement, which should be increased to a right-of-way width of 60 feet with a 40-foot pavement; otherwise it is going to to be badly jammed with traffic in a year or two at latest. There seems to be no prac-



VIADUCT OVER BOSTON POST ROAD AT PETERSVILLE ROAD

tieal alternative. This implies a new bridge over the railroad tracks, which should be built jointly by the County Highway Department, the Westchester County Park Commission, and the railroad. The City's share of the expense should not exceed $149,100.

Pelham Road Extension

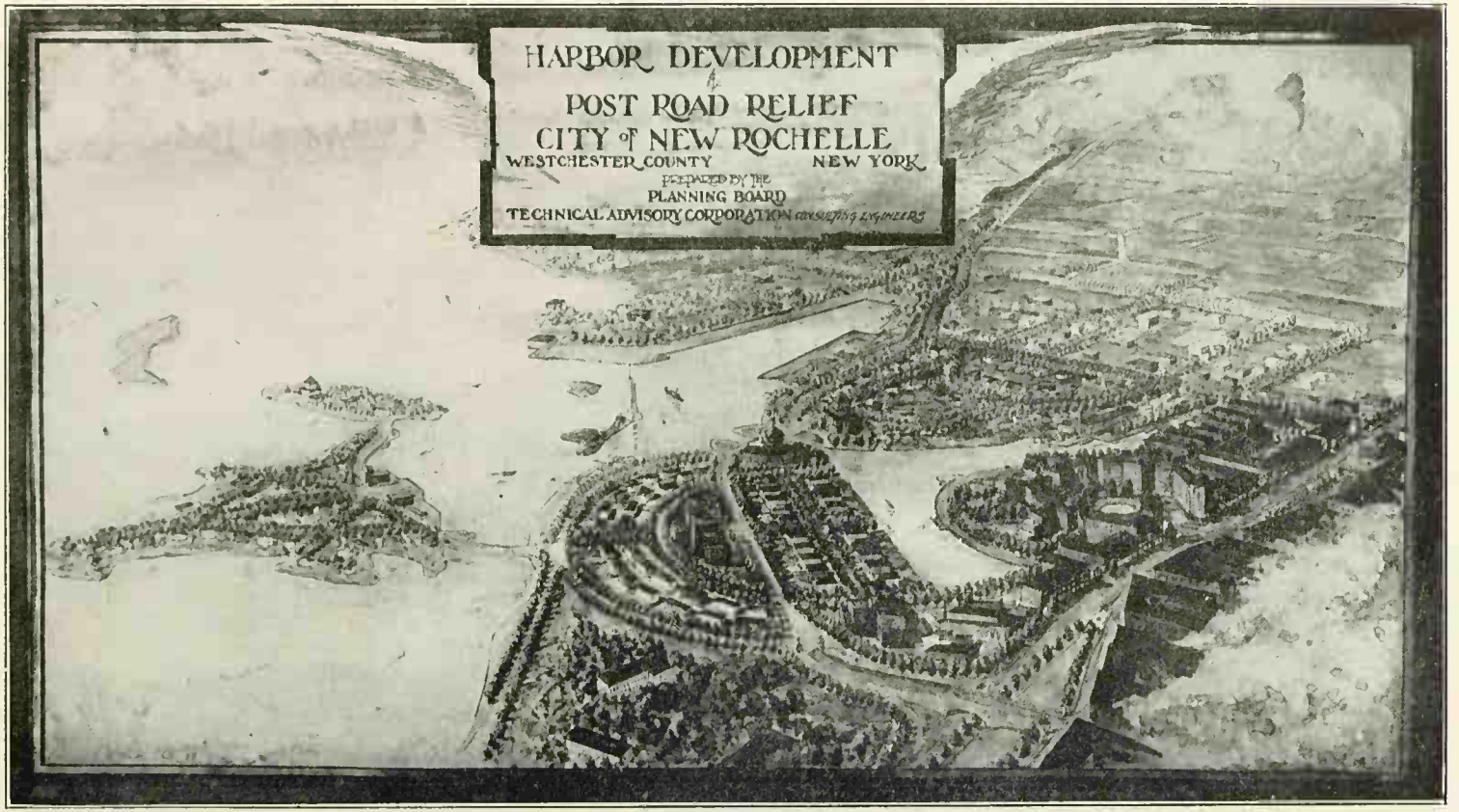
The greatest traffic problem of the immediate future is now fast developing at the intersection of Echo Avenue and Main Street. Last fall, (1928), soon after Echo Avenue had been repaved and opened to traffic, a eareful vehicular count was taken at this point, the results of whieh are shown on the diagram entitled "Sunday Traffic Flow —Echo Avenue and Boston Post Road." It will be seen from this drawing that even at that time when comparatively few people knew that Echo Avenue had been reopened the traffic on this thoroughfare was little less than that on the Boston Post Road. The tremendous number of left turns which are necessary at this intersection are fast making it the worst point of congestion anywhere along the Boston Post Road. The new county road from Larchmont along Biltmore Avenue and its extension to Petersville Road will bring into New Roehelle an enormous amount of traffic that must be taken care of and directed into Pelham Road and Boston Post Road in a way which will eause the least amount of traffie congestion. The question perforce arises as to what can be done to find a practieal solution of this menace. Again, an opportunity presents itself to cure four bad eonditions at one time.

Lying just east of Sutton Manor aeross a narrow inlet is a quite undeveloped subdivision that has remained so for some ten to fifteen years. During this time the owner has lost intcrest on his investment and the City of New Rochelle has lost a large ineome from taxes. There are many beautiful building sites on this property, and if the detrimental elements were removed, good development would quickly follow. The shore front north of the narrow inlet is eertainly in an unhealthy condition and an eyesore to the surrounding community. The problem then is to find the ideal combination of these four very necessary improvements and at the same time to bring the region up from a state of sordid dilapidation so that it will become, in a comparatively short period, one of the outstanding beauty spots of the whole Sound Shorc.

On the east side of Echo Avenue is Sutton Manor, a beautiful private subdivision. To bring Pelham Road with its great traffic and consequent dirt and noise through the middle of this area would be nothing less than eriminal.

Where Echo Avenue and Pelham Road meet, Neptune Lane starts and runs about 620 fect east, well back from any houses in Sutton Manor. By widening Neptune Lane on the south side and continuing it east across a small drawbridge to meet Echo Parkway, and relocating Echo Parkway as shown and constructing a viaduct over Main Street at Le Fevres Lane, the Pelham Road traffic can be carried uninterruptedly into Petersville Road and from there into the new county road, running east through Larchmont or north up Pine Brook Boulevard.

The peace and charm of Sutton Manor and the outlook over the Sound could be preserved by building a high wall or fenee along the rear lot lines of the properties bordering on Neptune Lane and by adding a sereen of trees or shrubs to deaden the sound. At the southeast corner of Sutton Manor the road would pass through a walled



BIRD'S-EYE VIEW OF PROPOSED HARBOR DEVELOPMENT

cut over which the charming existing gardens there could so bridge as to largely conceal the motor highway. In the same way Echo Parkway could be so laid out as to mitigate any harmful effect of the traffic on surrounding residential development. It is believed that the County would participate generously in this project.

Harbor Development

The City owns a large tract of land south of the Post Road about one-third of which is being used by the Department of Streets and for the sewage disposal plant. The remaining two-thirds is idle. As a yard location for the Department of Streets this will in a few years be much too far from the center of population. Logically a site should be chosen farther north, preferably near the railroad tracks and so located that it will be neither costly nor a nuisance to the surrounding community. A site that answers every requirement now exists just north of the New York, New Haven & Hartford Railroad tracks on the east side of the city, east of Potter Avenue, and, best of all, it is ownel by the City. An industrial plant is to be built just west of this site and on the east is property owned by the Westchester County Park Commission. A proposed thoroughfare will border it on the north and the New York, New Haven & Hartford Railroad tracks on the south, thus permitting sidings. A little grading and landscaping is all that is needed to make this a very desirable site for the Department of Streets and one which can not harm its neighborhood.

The accompanying plan has been drawn and the drawbridge proposed with the idea in mind of protecting the rights of all citizens engaged in business which may depend upon their free use of the waterfront. Every endeavor has been made to help rather than hinder the efficient movement of boats by the arrangement here proposed.

A further development for Clifford Island is also shown with a proposed winter approach to the New Rochelle Yacht Club.

When completed, these improvements can be seen and appreciated by visitors, not only from Pelham Road, but from the Boston Post Road, Hudson Park, and many points on the Sound. This development of New Rochelle's shore front should set an enviable example for many years to come for other shore communities in Westchester County.

The most interesting part of all is the fact that a great part of the land needed for this whole development is already owned by the City of New Rochelle. The rest is comparatively inexpensive and a great deal of property should be given by local owners for the benefit which will be derived from the increase in the value of their property.

This whole improvement would probably cost in the neighborhood of $979,000. of which perhaps $47,200 could be assessed locally, and of which at least $232,500 should be paid by the state or county, leaving a net cost to the City in the neighborhood of $699,300. It seems to be generally agreed that this is the only practicable solution of one of the most serious and most dangerous traffic problems in New Rochelle. It will have to be faced squarely and the expense met. Otherwise the consequences may be most serious.

Guion Place Extension

Another important street improvement is to complete the relieving highway for North Avenue by widening Guion Place from Lockwood Avenue to Winyah Avenue from its present 60 feet up to 80 feet, and then extending it from Winyah Avenue directly through to Coligni Avenue, with a 36-foot roadway. These two items would probably cost a total of $432,000, of which at least $102,400 could be assessed locally, leaving a net cost to the City of not over $329,600. This would complete the effective use of the parallel relieving street to North Avenue.

Fifth Avenue

As a main east and west thoroughfare Fifth Avenue can be readily widened now at small cost up to 60 feet between building lines. It would probably cost about $194,000, of which two-fifths could readily be assessed back locally. The intersection of Fifth Avenue and Ashland Street is most dangerous on account of its sharpness and the steep grades. This condition could readily be remedied at a cost of $2,000.

Beaufort Place, where it comes into Fifth Avenue from the south, should be extended directly across to the north into Treno Street, just east of the new stores at the corner of North Avenue. This will give a much needed through connection and secondary parallel relieving street for North Avenue. It will probably cost about $108,000, of which $43,200 could be assessed locally, leaving $64,800 as the net cost to the City.

Avenue E Extension

Avenue E along the south side of the railroad tracks, just east of North Avenue, could serve a most useful purpose as a relieving street for Huguenot Street. It would take the traffic coming from the proposed Guion Place relieving thoroughfare for North Avenue at the railroad viaduct and bypass it by an extension of Avenue E down into Hudson Street and so on into Franklin Avenue. This would probably cost $125,000, of which two-fifths could certainly be assessed back locally on account of the good new business frontages created.

Hudson Street Widening

At the same time that Avenue E is extended down to Huguenot Street, opposite Hudson Street, the latter should be widened from its present width of 35 feet to a total of 50 feet and given a 36-foot pavement. The total might cost about $260,500, of which two-fifths could readily be assessed locally on account of the obvious benefits conferred.

Huguenot Street Straightening

On the south side of Huguenot Street there is a bad bend between Harrison and Cedar Streets. It would probably cost about $60,000 to make this straightening. It would be a marked gain to the appearance as well as the safety of the street.

Cedar Street

Cedar Street should have its acute angle corner with its bad grades straightened out across the school property into Huguenot Street, and then north of the railroad tracks it should be extended from Orchard Street to Manhattan Avenue, including a new underpass beneath the New York, Westchester and Boston Railroad tracks.

This is a most obvious new relieving thoroughfare for North Avenue—one which most everyone has considered inevitable eventually. It cannot be put off any longer than this period. It will probably cost a total of $209,000, of which $60,000, or one-half of the underpass cost, should be handled by the railroad, and two-fifths of the balance could readily be assessed locally.

Quaker Ridge Road

Quaker Ridge Road is the principal east and west connection from North Avenue to Weaver Street in the northern half of New Rochelle. The effective road width is obviously too narrow for an efficient thoroughfare. It should certainly be widened to 60 feet before it is too late and a 40-foot concrete pavement laid. This would probably cost a total of $430,000, of which $75,000 should be paid by the County and of the remainder, surely $142,000 could be assessed locally for occurring benefits.

Relief Thoroughfare for Main Street

Business strikes a Chinese Wall when it tries to extend to the south of Main Street, and all for the simple reason that here is no through parallel street nearer than Pelham Road, which is over half a mile away. A new parallel street a short block to the south of Main Street would immediately make a breach in the wall and serve to open up the district to business. It would relieve traffic congestion on Main Street. It would provide parking for hundreds of automobiles that cannot find a place to park to-day, and it would create an entirely new street of business values where there are only residence values to-day. Such a street is surprisingly easy of realization, as the nucleus of it now exists in Laurel Place, Marvin Place, Le Roy Place, Clinton Place, and Lafayette Street. Echo Avenue would serve to connect the traffic flow into Main Street and Huguenot Street at the east and an extension of Laurel Place into Main Street opposite Beechwood Avenue would furnish the connection at the west. The existing streets above named, wherever less than 60 feet wide, could readily be widened to 60 feet at relatively small cost; the carrying charges on this improvement could, undoubtedly, be taken care of by the new ratables created.

By widening Le Roy Place and Clinton Place and extending Le Roy Place to meet Clinton Place during this period, a fair start will have been made toward carrying out this project. This will cost about $510,000. Upwards of $200,000 should be assessed locally.

Webster Avenue Extension

By the simple extension of Webster Avenue south to Laurel Place—a distance of only 275 feet—it is possible to make Webster Avenue a through north and south street for the length of the city. This would probably cost $126,500, two-fifths of which could undoubtedly be assessed back locally on account of corner business frontages created.

Titus Mill Pond Dam

A new mill dam is badly needed at the entrance of Titus Mill Pond. It probably cannot be deferred any longer. Its cost of $100,000 for a 4-foot raise would be distributed between the abutting property owners and the City, the City paying only two-fifths of the total cost.

Beechmont Lake Improvements

Beechmont Lake should have considerable improvement in its roadways and grading as Pine Brook Boulevard becomes ready for use. It would probably cost about $10,000.

Biltmore Park

With the extension of Biltmore Avenue into Petersville Road a delightful bit of woods there should be acquired and conserved by the City as a neighborhood park, especially as this part of the city has no neighborhood park anywhere within walking distance and the growth of population in this district is very rapid. It would serve at the same time to abolish the questionable condition that now exists and create in its stead an attractive termination for Pine Brook Boulevard from the north and the new county relief thoroughfare from the east. It would probably cost about $100,000, of which surely $40,000 could be assessed locally for benefits, leaving a net cost of $60,000 to the City.

City Park

The play area in City Park should be considerably enlarged; by five acres at least. The grading and landscaping costs involved would amount to about $50,000.

Neptune Park Extension

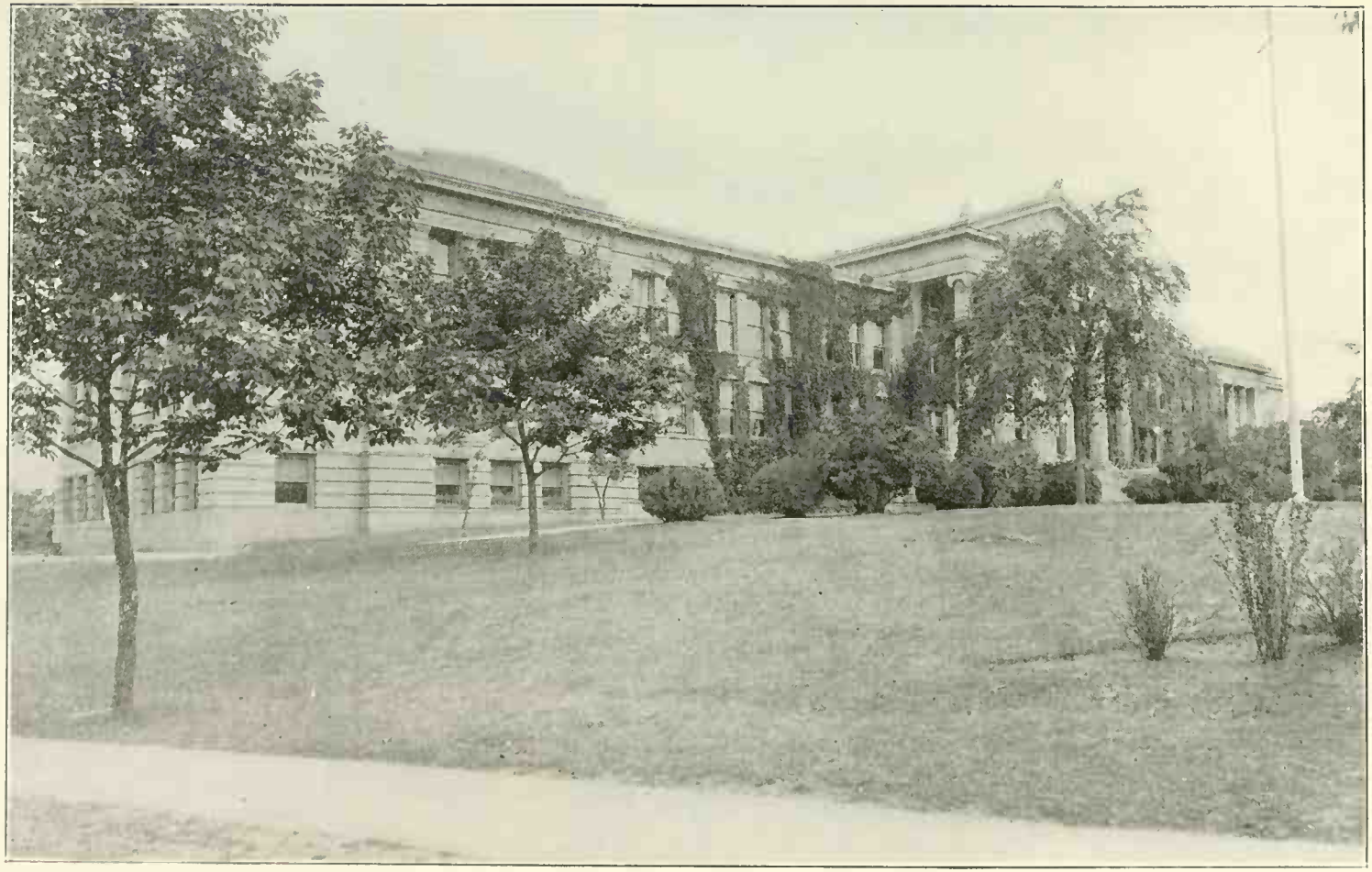
Without fail Neptune Park should be extended to include the cove to the southwest and to include the shore front to the east not only from the standpoint of the residents living in the immediate vicinity and to the City of New Rochelle in general, but also from the point of view of the hundreds of thousands of visitors who will cross the bridge from Neptune Island on the way to Glen Island. It is most important that a good impression should be created. This opportunity to complete a good job already well begun, is unique but, on the other hand, the part now existing will be vitiated unless the rest of the southern and eastern short front is promptly acquired. This addition of an acre and a half would probably cost $125,000, of which $50,000 could be assessed locally.

Morgan Street Playfield

The City now owns a large tract of land south of the New York, New Haven & Hartford Railroad and west of Weyman Avenue, in one corner of which the incinerator plant is now located. It is entirely feasible at a relatively small cost to develop 10 acres of this land just north of the north line of Morgan Street extended west for playfield purposes. This part of the city is entirely without play facilities, and here is an opportunity to create adequate playfield space at a cost of only $50,000.

Orchard Street Playfield

On the east side of North Avenue the Garden Street entrance to Cedar Street will be eliminated when the Pelham-Port Chester Parkway is constructed, and Lawn Avenue will have to be extended to Orchard Street. South of Orchard Street there is a relatively undeveloped tract ideally suited to playground use. A field of four acres can be developed here at a minimum cost to the City. It is greatly needed in this neighborhood. A large part of the area is already owned by the Westchester County Park Commission and can be used free of charge. The playfield will probably cost $120,000, half of which might be assessed locally.



CENTRAL JUNIOR HIGH SCHOOL

Central Junior High School

The property of the Central Junior High School should certainly be extended by about 3 acres for playfield purposes at a probable cost of $58,000. This should be taken care of by purchasing and grading the plot southeast of the present property.

Weyman Avenue Junior High School

Another Junior High School will probably be needed on the recently acquired Weyman Avenue property at a cost of about $500,000.

Roosevelt School

Roosevelt School on North Avenue will need additional rooms at a cost of probably $240,000.

Proposed City Hall Park

At least $50,000 more should be spent by this time for improving the grading and landscaping of the park around the proposed city hall.

Summary

During the period 1931 to 1935 the total cost to the City for street improvements would probably amount to $3,155,600. Parks and playfields would cost $335,000. A new Weyman Avenue Junior High School, expansion of the Central Junior High School and Roosevelt School will cost $798,000; $400,000 would have to be spent to complete the sewer contracts and undoubtedly $600,000 would have to be allowed for repaving and for the City's share of new paving on minor streets. This would make a total improvement cost for the period of $5,288,600.

Biltmore Avenue Overpass to Mill Road

Perhaps the most urgent improvement during the 1936-1940 period is a bridge over the New York, New Haven & Hartford Railroad tracks, leading directly into Biltmore Avenue at the elbow in Mill Road, and thus providing a direct communication from the county relieving thoroughfare for the Boston Post Road into the Pelham-Port Chester Parkway, Fifth Avenue, and Pine Brook Boulevard.

Siwanoy Avenue (North Avenue Extension)

Siwanoy Avenue is the logical southern extension of Rose Street to Pelham Road. Undoubtedly, the continuation of Rose Street from Clinton Place to Siwanoy Avenue will have been accomplished by this time, but if not, it should immediately be carried out, and Siwanoy Avenue should have its roadway widened to 36 feet.

Relief Thoroughfare for Huguenot Street

In the same way that Main Street has become the southern boundary to the district, Huguenot Street has become the northern boundary, but it is entirely feasible to create a new parallel relieving street to the north of Huguenot Street, between it and the railroad tracks, which will open the area to good business. At present it is a backwater district on account of its relative inaccessibility. A new through parallel relieving street to the north of Huguenot Street would again not only relieve traffic congestion on the avenue and provide parking space for hundreds of new cars, but it should create an attractive extension to the good business area, so much so that new values created should go far toward taking care of the carrying charges on the improvement. A large part of this new thoroughfare already exists in Avenue E, Railroad Place, Relyea Place, Columbus Avenue, Pine Street, and Birch Street. The widenings and connections are easy, and involve taking almost no buildings.

Rerouting Trolleys

If trolleys have not already been supplanted by buses, it will undoubtedly be a very real advantage to Huguenot Street to remove the trolleys there to the new parallel relieving street to the north. This should prove a most valuable improvement.

Webster Avenue

As a through north and south street Webster Avenue would have to be widened from Lockwood Avenue to the New York, New Haven & Hartford Railroad from its present width of 50 feet to 60 feet and its roadway increased to 36 feet.

At the same time the southern end of Webster Avenue, where it crosses the New York, New Haven & Hartford Railroad, should be straightened and relocated, as the railroad underpass is particularly dangerous on account of its abruptness.

Mechanic Street Widening

Mechanic Street will have to be widened, sooner or later, to satisfy the demand of the abutting property owners. It is to be expected that the demand will be great enough within another five or six years to warrant its undertaking. Its right-of-way should be increased from 35 to 50 feet and the roadway from 20 to 30 feet. This might cost a considerable amount, but as the benefit is entirely local, and as this wi-

dening should more than pay for itself in the increased values on property fronting on the street, it would seem unwise to undertake this improvement unless the abutting property owners were willing to assume the entire cost of the widening. Mechanic Street is not a through street. The advantage in widening is solely and exclusively to the abutting property owners.

Hay Street

Hay Street is the logical extension of Biltmore Avenue to Stephenson Boulevard. There is a very real advantage from a traffic standpoint in carrying out this extension by widening Hay Street from 30 to 60 feet and extending it to the Boulevard.

Lawn Avenue

With the opening of Pelham-Port Chester Parkway, Lawn Avenue becomes the logical extension of Lockwood Avenue into Orchard Street and the proposed Cedar Street extension to Manhattan Avenue. This would mean widening Lawn Avenue and extending it diagonally across into Orchard Street.

Anderson Street

Anderson Street could serve a very useful purpose and bring into use a lot of back land by its widening and extension into the newly widened Hudson Street. It should pay for itself in the new values it would create.

Brookdale Avenue Extension

The extension of Brookdale Avenue to the Pelham-Port Chester Parkway would provide a vitally needed downtown cross connection from Coligni and Fifth Avenues into the Biltmore Avenue relieving street and into the Pelham-Port Chester Parkway. The need of this connection is imperative without waiting for the completion of the Pelham-Port Chester Parkway.

Brookside Place

Brookside Place forms the only possible eastern extension to Mayflower Avenue. There is a very bad jog, between the two streets at their intersection with North Avenue. Brookside Place is now only 50 feet wide and should be widened by 10 feet; the roadway width should be made 36 feet, and the corner should be cut to eliminate the jog.

Halcyon Terrace Extension

If Halcyon Terrace is extended north to The Esplanade around Beechmont Oval, it will provide another much needed north and south connection.

Cedar Street

Cedar Street should have its pavement widened from its present 24 to 30 feet up to a uniform 36 feet.

Lockwood Avenue Extension

In order to complete the obvious east and west extension Lockwood Avenue should be extended west to Harmon Avenue.

Mayflower Avenue

Mayflower Avenue, which is an obvious crosstown thoroughfare, is only 50 feet wide from Mount Joy Place to Mayflower School. It could readily be widened to 60 feet. Furthermore the pavement from Pelhamville Road to North Avenue should be widened from 28 to 36 feet.

Mill Dam Road

Mill Dam Road is now only 15 to 25 feet wide. It is an obvious connection to Davenport Neck. It should be 60 feet wide with a 36-foot roadway. This is particularly needed as an access to the splendid new park, recently given the City, on the south side of Davenport Neck.

Mill Road

Mill Road now varies from 30 to 52 feet in width. As a main thoroughfare it should be 60 feet wide throughout, and its present roadway, 10 to 14 feet wide, should be increased to 36 and 40 feet.

Monroe Street

Monroe Street, if widened and extended through to Cedar Street, makes the only practicable cross connection from Cedar Street railroad underpass to Stephenson Boulevard and beyond.

Morgan Street

Morgan Street is the obvious continuation of Elm Street — the only crosstown thoroughfare between the Post Road and Pelham Road. In order to provide for its extension and to get access to the proposed city playfield and athletic field, it should be widened to 60 feet and given a 36-foot roadway.

North Avenue and Mayflower Avenue Corner

The corner of Mayflower and North Avenues is particularly dangerous and inconvenient for traffic. It is important for the City to rectify this bad connection which runs through into Brookside Place. In the long run it will be valuable enough to warrant the probable cost.

Northfield Road

At present there is no connection from Quaker Ridge Road (the principal east and west thoroughfare in the northern part of New Rochelle) into the Hutchinson River Parkway and Webster Avenue extension into Eastchester. By cutting off the corner of Northfield Road and North Avenue so as to give access directly into Quaker Ridge Road, and then widening and extending Northfield Road down along the edge of the Hutchinson River Parkway property into Webster Avenue extension at Upland Road, it is possible to form a most useful highway. As most of the land now belongs to the Westchester County Park Commission, the cost should be small.

Old Boston Post Road

Old Boston Post Road from Stonelea Place to Stephenson Avenue averages only 45 feet wide. However, as it gives a direct access to Petersville Road, it should be at least 50 feet wide with a 30-foot pavement.

Ashland Street Fire Station

The City now owns property for a fire station at the head of Ashland Street. A fire station on this property will be needed surely by 1936.

Trinity School

Trinity School on Trinity Place is very old and should be rebuilt within five or six years. At the same time the play area should be enlarged to normal size by extending the site eastward to Church Street.

Central Junior High School

Central Junior High School, according to calculated growth, will have to have at least six additional rooms within another six years.

Brookdale Park

Between Brookdale Avenue and the Boulevard extended, there is a fine growth of trees that would make a most attractive park, one which would be particularly appropriate for the neighborhood. The block contains about 1.2 acres that would be well worth preserving.

City Park Grandstand

If the City would contribute toward the cost of a grandstand anything further that might be needed could probably be raised by popular subscription. It should certainly be undertaken within another five years.

Davenport Park

The beautiful estate of 19 acres on Davenport Neck, facing directly on the Sound, which was recently given the City is an exceptional asset, and it would probably cost comparatively little to adapt it to park use. This should be done without fail.

Mayflower Park

South of Mayflower Avenue, near the Pelham Line, and west of Pershing Avenue and north of Lakeside Drive, is a beautiful rugged wooded area with a charming lake, most of which already belongs to the Westchester County Park Commission. It would make an ideal site for an open air theatre and community center and at the same time provide a much needed park for the whole neighborhood. The additional land needed to round out the 16 acres and the cost of grading, landscaping, and building the open air theatre and other buildings would probably not be prohibitive, as much of the cost could be assessed back locally.

Morgan Street Playfield

The large playfield and athletic field on the city property at the head of Morgan Street should be put in proper shape for effective use.

Neptune Park

Neptune Park should be filled in and landscaped and a retaining wall provided.

Sutton Manor Park

Sutton Manor Park at the entrance to the proposed Pelham Road Extension drawbridge would provide a perfect setting and frame for the entrance to the inner harbor, and would serve also to protect Sutton Manor from the traffic highway.

Interior Playfields

In the interior of the large block bounded by Jones Street, First Street, Union Avenue, and Second Street, the lots are too deep at present for practical use, and many people are paying taxes on land for which they have no real use. It has been found that a very satisfactory playfield can be developed in the middle of the block and still leave a depth of 150 feet for all lots. The same condition exists in the block bounded by Washington Avenue, Warren Street, Guion Street, and Webster Avenue. One-half the cost of these playfields could well be assessed locally.

The proposed playfield of 2.5 acres, between Washington Avenue and Guion Street, would serve a large area at present without playfield facilities.

Winyah Avenue Playfield

A playfield of 1.75 acres directly across Winyah Avenue from the Winyah Avenue Public School would provide much needed additional play space in connection with this school at exceptionally small cost, as land is now unused in the center of the deep block.

North Avenue Extension

In order to complete the north and south thoroughfare North Avenue should be extended directly north 80 feet wide with a 40-foot roadway where it takes its present bad jog into Wilmot Road at Mill Road. County aid should be forthcoming on this project.

Bayeau Road

Bayeau Road should obviously be extended from Lyncroft Road to Jerome Avenue. Its usefulness would warrant its cost.

Center Avenue

Center Avenue from Davis Avenue to Pelham Road will eventually become such an important through street that it should be widened to 60 feet.

Division Street

Division Street will need widening within another ten years from Huguenot Street to Main Street up to 60 feet in width, and its roadway should be increased to 36 feet in width.

Echo Avenue

Echo Avenue should be cut off at its dangerous west corner with Huguenot Street. This can probably be done for a very small cost.

Elm Street

Elm Street roadway should be widened from Weyman Avenue to Center Avenue, to 36 feet.

Fenimore Road

Fenimore Road will need to have its roadway widened from 14 up to at least 28 feet from Lovell Road to Van Meter Fenway.

Flandreau Avenue

Flandreau Avenue should certainly be extended to Glenfruin Avenue to complete an obvious through connection.

Fifth Avenue

Fifth Avenue roadway will undoubtedly have to be widened from its present 30 to 34 feet up to a total of 40 feet all the way from North Avenue to East city line.

Forest Avenue

Forest Avenue roadway needs to be widened from its present 22 to 24 foot width up to 35 feet throughout its length.

Forest Circle Extension

Forest Circle can well be extended from Elk Avenue to Broadview Avenue as a 60-foot street with a 30-foot roadway.

Glenfruin Avenue

Glenfruin Avenue should be widened from its present 20 feet to 60 feet, and its roadway increased from 20 to 28 feet from Flandreau Avenue to North Avenue. The property involved belongs to the City of New Rochelle, and, therefore, the cost would probably not be excessive.

Guion Place

Guion Place and its extension should by this time have the roadway widened to 56 feet all the way from Lockwood to Coligni Avenue.

Halcyon Terrace

Halcyon Terrace, as a through street, should be widened 10 feet from its north end to Lorenz Avenue.

Iselins Lane

Iselins Lane as a main thoroughfare east and west should be widened from its present width of 40 feet up to 60 feet and given a 36-foot roadway from North Avenue to Weaver Street. This will necessitate a new bridge over the railroad.

Lord Kitchener Road

Lord Kitchener Road, as an east and west highway, should be widened to 60 feet from Fenimore Road east.

Lorenz Avenue Corner of Fifth Avenue

There is a bad connection between Lorenz Avenue and Fifth Avenue at the southwest corner. It could be rectified to excellent advantage.

Lovell Road

Lovell Road needs to have its roadway widened from 14 up to 28 feet from North Avenue to Fenimore Road.

Mount Joy Place Extension

Mount Joy Place could well be extended from Eastchster Road to Clove Road furnishing a desirable through connection. This extension should be 50 feet wide with a 30-foot roadway, and would only cost comparatively little, as it is largely on city property.

Seventh Street

Seventh Street, as an important through street, should be widened to 60 feet, and the roadway to 36 feet from Storer Avenue to Washington Avenue.

Starr Terrace Corner Jerome Avenue

At the west corner of Jerome Avenue, Starr Terrace makes a bad angle which should be rectified.

Stephenson Avenue

Stephenson Avenue needs a little re-location at High Street, in order to straighten out a bad jog there.

Stephenson Boulevard

Stephenson Boulevard from Hay Street extension to Monroe Street should be paved 36 feet wide to give relief to Petersville Road.

Storer Avenue

Storer Avenue with its southern extension in Harmon Avenue and Seventh Street, should logically be extended north of Winyah Avenue into Lakeside Drive, thereby completing a north and south boulevard along the western boundary of the city. With a 60-foot street and a 36-foot roadway throughout this would provide a most useful new thoroughfare and at the same time open up a new part of the city, thereby creating new ratables.

Van Meter Fenway

The roadway should be widened to 28 feet on Van Meter Fenway to allow for parking on one side and for two lanes of traffic.

Victory Boulevard-Van Meter Fenway Corner

The north corner at the intersection of Victory Boulevard and Van Meter Fenway is now a very awkward one and should be cut back.

Webster Avenue

Webster Avenue should be slightly re-located, between the railroads, when the Pelham-Port Chester Parkway is built.

Weyman Avenue

The corners of Weyman Avenue would need to be cut off at Elm Street in order to take Elm Street directly into Morgan Street.

Wilmot Road

Wilmot Road will have to be widened from North Avenue to the city line for a distance of 2½ miles, from its present varying width of 35 to 50 feet up to a minimum of 60 feet, and the roadway of about 16 feet should be increased to a uniform 36 feet. Some of this expense should be assigned to the county, and the balance should be divided between the property owners benefited and the City.

Station Plaza Improvement

Further money would probably have to be spent, eventually, on the station plaza and structures in connection with the building of the Pelham-Port Chester Parkway.

Wilmot Road Police Station

Within another ten years another police station will be needed for the northern part of the City, preferably at the corner of Wilmot Road and North Avenue. It could be located on property already owned by the City.

Shore Development

No doubt during this period further development of the shore front can be carried on. Allowance should be made for additional land, new roadways, fill, landscaping, and retaining walls.

Brookdale Park

Further landscaping in Brookdale Park will be necessary in the 1941-45 period.

Jerome Avenue Park

The site for Jerome Avenue Park lies between the north extension of Bayeau Road and the intersection of Jerome Avenue and Overlook Road.

Wilmot Park

There exists a site just west of Wilmot Road and south of Iselins Lane that contains a charming wooded glen with a brook and a pond that should, by all means, be conserved for a neighborhood park.

Trinity School Site Extension

The property of Trinity School could be rounded out by purchasing land on Church Street and Trinity Place. This would complete the portion of the block necessary for school use, which is obviously so desirable.

Quaker Ridge Junior High School

A site for a junior high school and grade school, to contain about nine acres, should be acquired within another ten years on Quaker Ridge Road. Surely the development of the northern part of New Rochelle would warrant this within 12 years.

Stephenson School

The site of the Stephenson School is much too small for adequate play space. Two acres can be added to the north and east, which should certainly be done during this period.

A junior high school with 20 class rooms could well be built on the new plot to the north that would serve to distribute the junior high school facilities in a way that would be a great convenience to the school children. The building should be so built that it could be enlarged later if necessary.

Clinton Avenue Junior High School

Another new junior high school will be needed on the west side for the convenience of a rapidly growing school district and probably the most suitable site is one between Webster and Clinton Avenues, near Coligni Avenue, where 7 acres can be acquired and a 20 room building erected.

Wilmot Road School

Between Wilmot Road and Iselins Lane it is possible to acquire a site of 5.6 acres and erect a grade school of 16 to 20 rooms. This will surely be necessary within another 12 to 15 years.

Clove Road

Clove Road, as an important link in the north and south relieving thoroughfare for North Avenue, should be widened from Coligni Avenue to Parcot Avenue up to a right-of-way width of 60 feet and the roadway widened to 40 feet.

Bon Air Avenue

Bon Air Avenue is bound to become an important link across town from the Hutchinson River Parkway into Trenor Drive. Therefore, the whole length of the avenue should be widened to 60 feet and the roadway from its present width of 22 up to a total of 36 feet.

Crawford Terrace

Crawford Terrace becomes an important link in the proposed relieving street for North Avenue, and, as such, it is important to have the bad connection with North Avenue straightened out.

Disbrow Lane

Disbrow Lane becomes an important link between North Avenue and future highways to the east of it, over to Webster Avenue, where it extends under the railroad tracks to connect with the Hutchinson River Parkway. It should, therefore, have a width of 60 feet and a 36-foot roadway.

Lyncroft Road

At the east corner of Linde Terrace the corner should be rounded off to facilitate traffic.

A similar corner should be cut off at the intersection of Overhill Road and Linde Terrace.

Overlook Circle

Overlook Circle should be extended north to Forest Avenue. It is possible to make this completing link in the chain of cliffside drives with relatively little difficulty if there are no buildings in the way. The expense would undoubtedly be warranted by the great convenience it offers.

Stratton Road

Stratton Road is a principal cross town thoroughfare in the north of the city, and the necessity of paving it is obvious.

Trenor Drive

At the corner of North Avenue and Trenor Drive a bad traffic condition exists, which can be taken care of by cutting off the corner.

White Plains Road Relief Thoroughfare

White Plains Road, through Eastchester and Scarsdale, will need a relief thoroughfare within another 10 or 15 years. The ideal location would seem to be along the right-of-way of the New York, Westchester & Boston Railroad. It is with this

in view that a section of this road, 60 feet wide with a 40-foot roadway, has been laid out alongside of the Hutchinson River Parkway and the railroad. This would extend two-thirds of a mile from the city line to Webster Avenue Extension and would be a great service to through traffic, particularly to such commercial traffic as is not allowed to use the Hutchinson River Parkway. A great part of the expense for this thoroughfare should be paid by the county.

Harbor, Apartment, and Business Center

The present city yard on East Main Street offers an admirable site for a waterfront park, but if the property is not used as such, it is an ideal location for an apartment and business center at the head of the proposed harbor. Roadways 30 feet wide would be provided in this development.

City Hall

The city hall will probably need enlarging at the fourth period, and further improvement of the surrounding park will probably be necessary.

Stratton Road Fire Station

Within another 15 years a new fire station on Stratton Road near North Avenue will undoubtedly be needed.

Incinerator

A new incinerator will have to be built, preferably on the designated site between Bon Air Avenue and Rose Hill Avenue. The proposed site is remarkably well located in the northern part of the city. It is right on the railroad where a railroad siding would be feasible. It can be entered directly from through highways. It is isolated. In fact, it should cause almost no harm to surrounding residential property.

Shore Development

The proper shore development, especially around the harbor, would probably call for an expenditure during this half decade of a comparatively small amount, and together with what would normally be spent by private property owners should be sufficient to complete the whole project in a worthy manner.

High School Site on Iselin's Lane

It is feasible to select a splendid junior and senior high school site of 12 acres on Iselin's Lane.

Quaker Ridge Junior High School

Quaker Ridge Junior High School could probably be completed with about 40 rooms during this period.

Stephenson School

Stephenson School on Stephenson Boulevard will need an extension of about eight rooms.

Appendix I

HOUSING AND POPULATION*

Growth and Distribution

Housing

Should apartment houses be encouraged or discouraged in a suburban city? As no quantitative analysis of this subject seems to have been made in any city, the Planning Board conducted an investigation to find out whether apartments are really desirable or not from the standpoint of the City, of the owner and of the tenants. Obviously social values are difficult to measure even qualitatively, but economic values can easily be measured quantitatively as well as qualitatively and, therefore, the latter formed the chief basis of the investigation.

An attempt was made to create two typical comparable fields: (1) composed entirely of modern apartment houses built within the last 10 or 15 years and (2) the other consisting of typical single-family houses of fairly recent development in the same general area and of about the same class of people and means as those who lived in apartment houses.

An intensive door-to-door canvass was made of 29 recent apartment houses and about 60 one-family houses in the apartment house neighborhood. In addition the records of the Building Inspector's office were analyzed in some detail. The detailed results of these investigations are contained in a number of tables and charts in the office of the New Rochelle Planning Board.

In general the results of this investigation show:

1. The building cost per room averages about $1300 for the dwellings and between $1500 and $1600 for the apartments, the difference being accounted for by the fire proof or semi-proof construction of the apartments.

2. The land cost per room, taking an average for 15 apartments, is $130, whereas the land cost per room for 56 typical dwellings averages $575, or 4 to 5 times as much for the dwelling.

3. The building cost per family or per apartment averages $9100 for the dwellings and $5500 for the apartments, or less than two-thirds as much for the apartments. If the same construction were used in the dwellings as in the apartments the latter would cost less than half as much per family.

4. The land cost per family or apartment is $465 for apartments and $4050 for the dwellings, or nearly nine times as much for the dwelling.

5. The average cost per room for building and land is $1680 for apartments and $1875 for dwellings.

6. The cost per family for land and buildings is $5050 for apartments and $15,300 for dwellings, or over three times as much for the dwelling.

7. The assessed value of land and buildings per family averages 75 per cent. more for dwellings than it does for apartments.

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* By George B. Ford of the Technical Advisory Corporation.

8. The assessed values of the buildings per family run from 30 per cent. to 40 per cent more for the dwellings than for apartments.

9. The assessed value of land per family runs from 6 to 13 times as much for dwellings as it does per apartment

10. The ratio of the assessed value of the land to that of the buildings averages 7 per cent. for the apartments and 45 per cent. for the dwellings, or 6½ times as great for the dwellings.

11. The average percentage of occupancy of the apartments is 72 per cent. Figures are not available for the houses, but there is not much difference.

12. The average number of square feet of land per family is 503 square feet for the apartments and over 5,000 square feet for the houses, or 10 times as much.

13. The average number of square feet of land per person is 190 square feet for the apartments and 1,180 square feet for the dwellings, or 6 times as much.

14. The average number of square feet of building floor area per family is 954 square feet for apartments and about 2,000 square feet for the dwellings, or over twice as much.

15. The percentage of the area of the lot that could be occupied by the apartment houses under the Zoning Ordinance averages 51 per cent., whereas the area actually occupied by the buildings averages only 42 per cent. The dwellings average occupying 25 to 30 per cent. of the lot.

16. The apartments in New Rochelle average a little over 4.6 stories in height.

17. The apartment houses average 30 apartments or 30 families per house.

18. The apartments average 3.54 rooms per family, whereas the dwellings average 7 rooms per family or almost exactly double.

19. Whereas the dwellings have twice as many rooms per family as the apartments, they cost three times as much as the apartments.

20. By comparison, it is interesting to note from the statistics of the Tenement House Department of New York City that the average number of rooms per apartment in 1918 was 4.19, whereas in 1928 it was 3.27. In 1918 the new apartments of less than 4 rooms were only 33.6 per cent. of the total number of apartments, whereas in 1928 it was 77.3 per cent. of the total.

21. The average number of people per family is 4.25 for the dwellings and 2.8 for the apartments.

22. The number of children or minors per family is 0.4 for the apartments and approximately 1.5 for the houses. In either case two-thirds of the children are of school age.

23. The automobiles are only one for every two families in the case of apartments and at least one for every family in the case of dwellings.

24. The garage capacity on the premises is only about one car for every 8 families in the case of the apartments, whereas it averages over one car per family in the case of the dwellings.

25. The apartment dwellers appear to use the shops in New Rochelle fully as much as the house dwellers.

26. Almost one-third of the apartment tenants moved in from private dwellings. One-quarter moved in from out of the city.

27. The number of families accommodated in new one-family dwellings was 324 in the year 1924 and came down to 161 in the year 1928, whereas the number of families accommodated in new apartments in 1924 was 360, and in 1928 it had increased to 609.

28. The average monthly rent per room is $29.20 for apartments, which is approximately $350 per year. As there are on an average of 3½ rooms per family, the average rent per apartment per year would be $1225. In proportion to the number of rooms the dwellings should rent for an average of $2500 per house per year. The actual rents for such few houses as are rented are not available, but 12 per cent. of $15,300, the average cost of land and dwelling, is $1825 per year, or 50 per cent. more than the apartments for 100 per cent. more rooms.

All costs are based on assessed valuations.

From these statistics it would appear that the apartment house and the dwelling both have a place. Where there is a family of children of pre-school or school age, the dwelling offers more advantages in proportion to the rent than does the apartment. However, for families where there are no young children, or possibly at most one child, and for single adults, the apartment offers distinct advantages. With the constant decrease in the size of the family, the number of families or individuals who would find it preferable to live in an apartment is constantly increasing. Therefore, the market for apartment houses is increasing.

From the standpoint of the building owner the rapidly increasing price of land per square foot in New Rochelle and the number of square feet that must be preserved around houses for health and safety is making it more and more difficult each year to build new one-family houses to rent. On the other hand even the garden type of apartment with relatively large open spaces around it is a more economic proposition to the owner and to the tenant than is the one or two family house.

From the City's standpoint the apartment house pays in taxes per square foot of land about three times as much as the dwelling. However, the apartment brings about half as much in taxes per family as does the dwelling, but it is believed that this is more than counteracted by the lesser service per family which the City is required to render the apartment dwellers in all sorts of public services and improvements including schools. The fact that there are over three times as many children of school age in the dwelling as in the apartments would alone go far toward striking the balance in favor of the apartments from the standpoint of the City's service.

The fact that almost all of the automobiles belonging to the dwelling families are housed on the same lot with the family, whereas in the case of the apartments they have to be housed in public garages, means that the apartments add materially to the business of the community.

As to fires and contagious disease, the records seem to show no advantage one way or the other, although the increasing tendency to build fireproof apartments is tipping the balance in favor of the latter.

As to which make the better citizens, the apartment dwellers or the house dwellers, there is no reliable evidence one way or the other, although experience of many years with both types of communities leads the writer to believe that it is easier to effect worth while public improvements in a city of apartment dwellers than it is in a city of house dwellers.

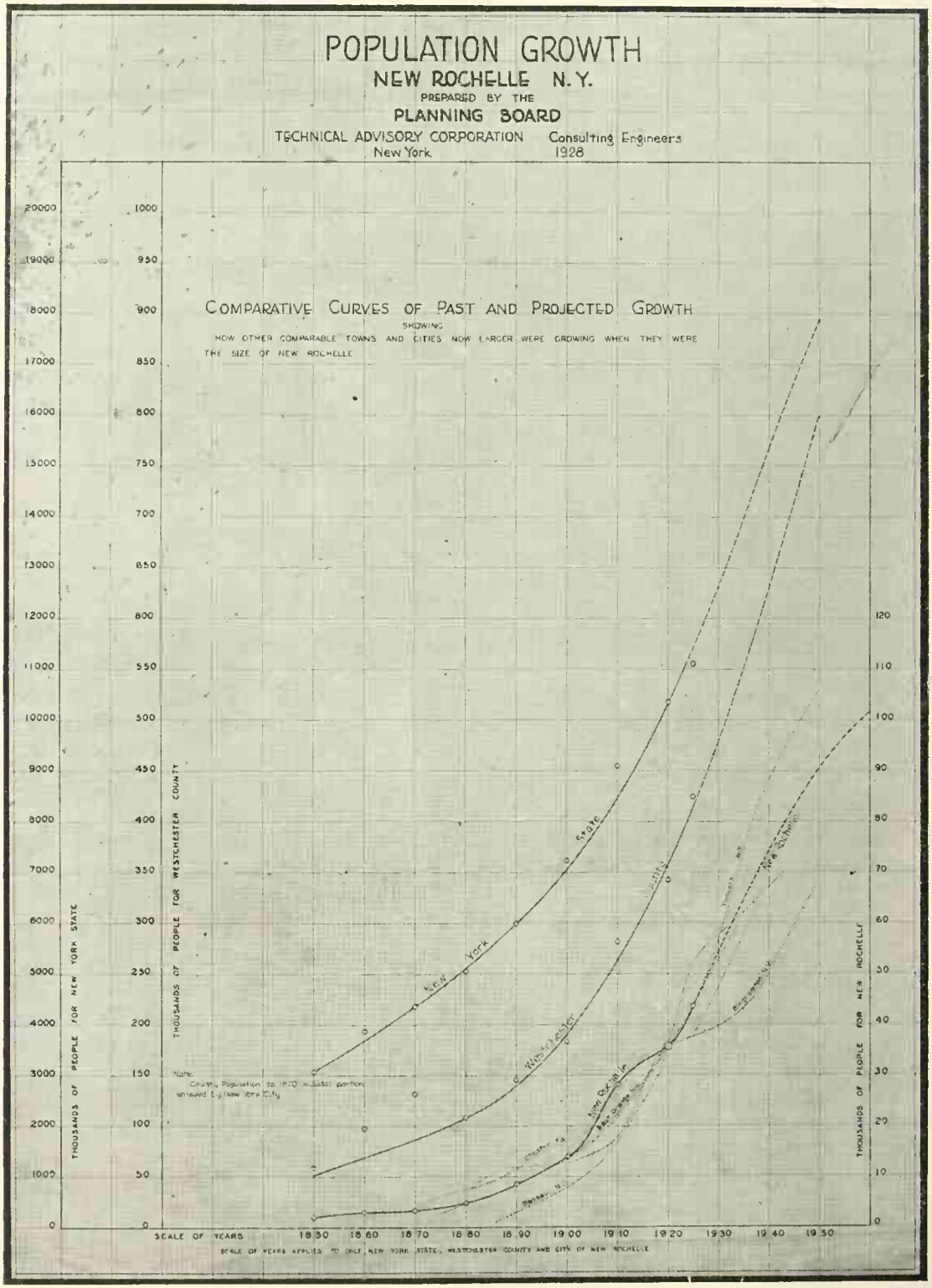
Our general conclusion from the above inquiry is that New Rochelle has more to gain than it has to lose by encouraging the erection of apartments in the residential parts of the city that are now almost entirely built up with large older houses for which there is relatively small market on account of their obsolescence and relatively high land values. This applies particularly to the district between the railroad and the Shore. Apartments should not be allowed to invade any one-family district that is protected by private covenants or that is still at all active with new one-family house building. Furthermore, the investigation shows that it is entirely practicable and economic to insist that no new apartment house should cover over 40 per cent. of the lot and under many conditions it would be practicable to limit them to 30, 20 and even 15 per cent. of the lot. The survey also shows that it is no hardship to limit apartments to 4 stories in height unless they are restricted to a very small percentage of the lot area.

Population

Today the population of New Rochelle is approximately 53,000 people. The City is growing more rapidly than any larger community in Westchester County with the possible exception of Mount Vernon. The accompanying population growth curve shows that New Rochelle is growing today fully as rapidly as the county or the state as a whole. A comparison of its growth curve with that of other cities similarly situated but somewhat larger would show that New Rochelle should continue to grow at a rate which should give it over 90,000 people by 1950 and at least 75,000 people by 1940.

In the Regional Survey of New York and Its Environs, Volume II entitled, "Population, Land Values and Government" the comparison of the relative growth of cities through the New York metropolitan region would imply that New Rochelle should probably continue to hold its leadership as one of the fastest growing, if not the fastest growing city in the region.

Table 6 of this latter report shows that 43 per cent. of the population is gainfully occupied, which is just about the average of all the cities of the region. Only about one-quarter of those gainfully occupied are actually engaged in industry, which is a very low proportion, and even this proportion has decreased considerably during the last ten years. Therefore, it is safe to say that the tendency of New Rochelle is away from industry, and that it is becoming more and more a city of commuters. This is borne out by the fact that the railroad records show that commutation is increasing at the rate of about 10 per cent. per year. New Rochelle's superiority as a commuting center is evidenced by an investigation made by the Regional Survey of New York and Its Environs, which shows that during the 5 years from 1922 to 1927 commutation from the zone 10 to 15 miles from the New York terminal nearly doubled in amount, whereas for the zone of 20 miles and over commutation decreased about 25 per cent.


POPULATION GROWTH
NEW ROCHELLE N.Y.
PREPARED BY THE
PLANNING BOARD
TECHNICAL ADVISORY CORPORATION Consulting Engineers
New York 1928
COMPARATIVE CURVES OF PAST AND PROJECTED GROWTH
SHOWING
HOW OTHER COMPARABLE TOWNS AND CITIES NOW LARGER WERE GROWING WHEN THEY WERE
THE SIZE OF NEW ROCHELLE
THOUSANDS OF PEOPLE FOR NEW YORK STATE
THOUSANDS OF PEOPLE FOR WESTCHESTER COUNTY
THOUSANDS OF PEOPLE FOR NEW ROCHELLE
20000
19000
18000
17000
16000
15000
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
1000
950
900
850
800
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
120
110
100
90
80
70
60
50
40
30
20
10
0
New York
State
Yonkers
New Rochelle
Mount Vernon
Bronxville
Scarsdale
Eastchester
Pelham
Pelham Manor
Note.
County Population to 1870 in Bronx portion
annexed to City of New York
SCALE OF YEARS
1850 1860 1870 1880 1890 1900 1910 1920 1930 1940 1950
SCALE OF YEARS APPLIES TO ONLY NEW YORK STATE, WESTCHESTER COUNTY AND CITY OF NEW ROCHELLE

New Rochelle is just 16 miles or 32 minutes from the Grand Central Station. It is the nearest community to New York in any direction with a large frontage directly on the Sound or the ocean, where one can enjoy all the advantages of cool sea breezes, sea bathing, boating, sailing and other water sports and where at the same time there are both the advantages of city service and plenty of open suburban country. There is no community as near New York that has such a large unbroken section devoted exclusively to high-class suburban homes and at the same time where it is possible to develop open suburban garden apartments in charming surroundings and near the water in anything like the degree that New Rochelle offers. There is no city so near New York that offers such a large area for high-class suburban development as is to be found in the northern half of New Rochelle. There is no city so near New York, where it is possible to get out into charming, rural country, through beautiful parkways and parks, as is possible from New Rochelle.

There is no city so near New York that has carried out, or is in a position financially to carry out, desirable public improvements on as large a scale as New Rochelle is doing.

There are few, if any, cities of its size so near New York that have so many well established clubs and organizations of a civic, art, cultural or social character as has New Rochelle. There are few communities so near New York that can boast such good shops and stores, such a good harbor, and such good railway freight facilities as can New Rochelle. In its schools and parks it is well above the average.

With this abundance of assets it is hard to find any logical reason why New Rochelle should not continue to have a rapid and substantial growth of excellent quality. If anything, the prognostication for its growth is most conservative. A population of one hundred thousand by 1950 is not at all impossible.

Appendix II

PLAYGROUNDS AND PARKS*

Distribution, Size and Urgency

Parks and playgrounds can be divided into the following types or groups according to the leading recreational authorities†:

1. Play lots or kindergarten playgrounds for children of pre-school age;

2. Children's neighborhood playgrounds for boys and girls up to 12 or 14 years of age;

3. District or neighborhood playfields for the active play of people over 14 years of age;

4. Athletic fields for exhibition games and sports for people over 14 years of age;

5. Local or neighborhood parks or landscaped squares;

6. Larger or district parks, which may contain play areas;

7. Reservations which are usually large areas outside the city limits serving as objectives for excursions.

There are other special types of recreational areas, such as golf courses, bathing beaches, zoological or botanical gardens, automobile camps or parks, race tracks and "Coney Islands."

Play Lots

There are few municipal play lots for children of pre-school age. Where play space is provided for children of kindergarten age, it is often in a corner of a park or playground for older people or else in connection with a kindergarten school, or it is a feature in a private housing group. The zoning ordinances of New York City and a few other municipalities encourage the creation of play lots by relaxing the zoning yard and court requirements where play lots are provided within a building plottage. A number of recent modern housing developments from dense tenement house groups to open subdivisions have provided play lots usually in the middle of the block. The areas so provided vary from about 5,000 square feet up to an acre or more. Five thousand square feet would seem to be a working-minimum, and experience shows that more area is desirable wherever feasible.

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* By George B. Ford of the Technical Advisory Corporation.

† These include the following: "Play Areas" by the Playground and Recreation Association of America, 1928; "Parks," edited by L. H. Weir for the Playground and Recreation Association of America, 1928; "Public Recreation" Volume V of the Regional Plan of New York and Its Environs, edited by Lee F. Hanmer, 1928; a Playground Handbook for Chamber of Commerce Executives, prepared by Gardner S. Rogers for the Civic Development Department of the Chamber of Commerce of the United States, 1929; Reports and articles by Professors George D. Strayer and M. L. Englehardt of Teachers College, Columbia University, N. Y.; the American School and University Annual, published by the American School Publishing Corporation; articles by Professor Henry V. Hubbard of Harvard University; Reports and articles by the author, in particular an article entitled "Parks and Playfields," published in the American City Magazine in April, 1928.

The ideal distribution of play lots is one to every block so that no young child would have to cross the street in order to reach a place to play. This principle carried to its logical conclusion has dominated the whole layout of the new "Motor Age Town", Radburn, New Jersey. In practice it is obvisously impracticable for cities and towns to purchase playlots in every block. However, private initiative to this end should be strongly encouraged and not only should every inducement be given to group house builders and subdividers to provide play lots in each block, but wherever feasible zoning ordinances and platting regulations should insist on the provision of kindergarten play areas.

Wherever block play lots are out of the question on account of the cost, in areas that are densely inhabited, it is desirable to create small recreational areas for children of pre-school age in the corner of a neighborhood playground, completely isolated from the rest of the play space. They could even be located in small neighborhood parks without real detriment to the enjoyment of the park as such.

Neighborhood Playgrounds

Playgrounds for children of school age should be adjacent to schools. School Boards generally now recognize the necessity of their providing adequate play space in connection with each of the public school buildings. Parochial and other private schools are likewise providing adequate play space near the schools. Schools today, as a rule, are being located where they will be easy of access to the children who use them. Numerous soundings show at least 50 per cent. of the children, who would normally use a playground for children up to 12 or 14 years of age, live within a quarter of a mile of the site, and 35 to 40 per cent. more live between one-quarter and one-half mile of the site. As public schools with their playgrounds are usually within one-half mile of the pupils using the school, most new school play grounds are being located where they should prove attractive and convenient to the children in the neighborhood even outside of school periods. About the only exceptions to the provisions of playgrounds in connection with the schools would be the few cases of older schools where added playground space would be prohibitively costly, and the very rare city where the School Board was not sympathetic with the playground idea.

Obviously, it is most important that each playground should be large enough to render adequate service not only now but for many years to come. At the same time a playground too large for its district is a wasteful drain on the taxpayer. Therefore, if there is any reasonable means of calculating the size of playgrounds in the same way that one calculates the size of sewer or water mains, it is obviously to the advantage of all to do so. Peak load use unquestionably affects the size of a playground, for its children are discouraged from coming to a playground by finding it overcrowded, the playground is beginning to defeat its purpose. Furthermore there is apparently a minimum size for playgrounds, below which it is impracticable to provide the various types of games and sports that any satisfactory playground should have. Dr. Strayer of Columbia University maintains that the playground for a three-room school should cover not less than 4 acres and for a consolidated school not less than 10 acres. Mr. L. H. Weir maintains that 3½ acres is about the minimum practicable size for effective use. The Playground and Recreation Association also says that under normal conditions 3 to 4 acres are satisfactory, although a larger area is preferable. The American School and University recommends at least 4 to 5 acres.

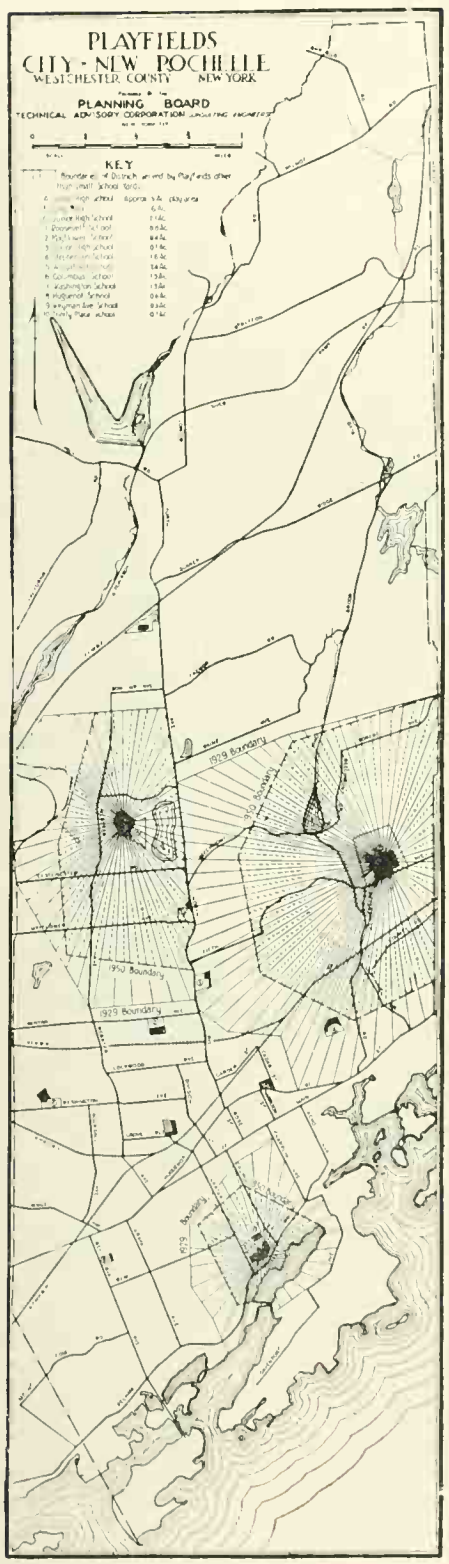
The next question is whether a given playground is large enough for the child population of its radius of service. Various experiments have shown that each child of elementary school age requires from 100 to 200 square feet of space while actually playing. Experiments conducted by the Sage Foundation in New York showed an average of 93 square feet per child actually playing in intensively used playgrounds. During the school period fully half of the children may be using the playground at one time, although out of school hours and on holidays and Sundays actual counts show that anywhere from one-third to one-seventh of the eligible children are actually playing at any one time. One-fourth would be a high average. Thus, if 100 feet per child is needed for actual play, it is fair to assume that only 25 feet per child living in the neighborhood need be allowed in calculating the size of the playground on the assumption that during school hours not much over one-quarter of the children are sent out to play at any one time. This would mean virtually one acre to 1,742 children in the district of from 5 to 14 years of age. Where the homes have their own yards it can be assumed that a certain amount of the children's play will be at home. In such an area it is fair to assume that from 15 to 20 square feet of playground area per child would probably be satisfactory.

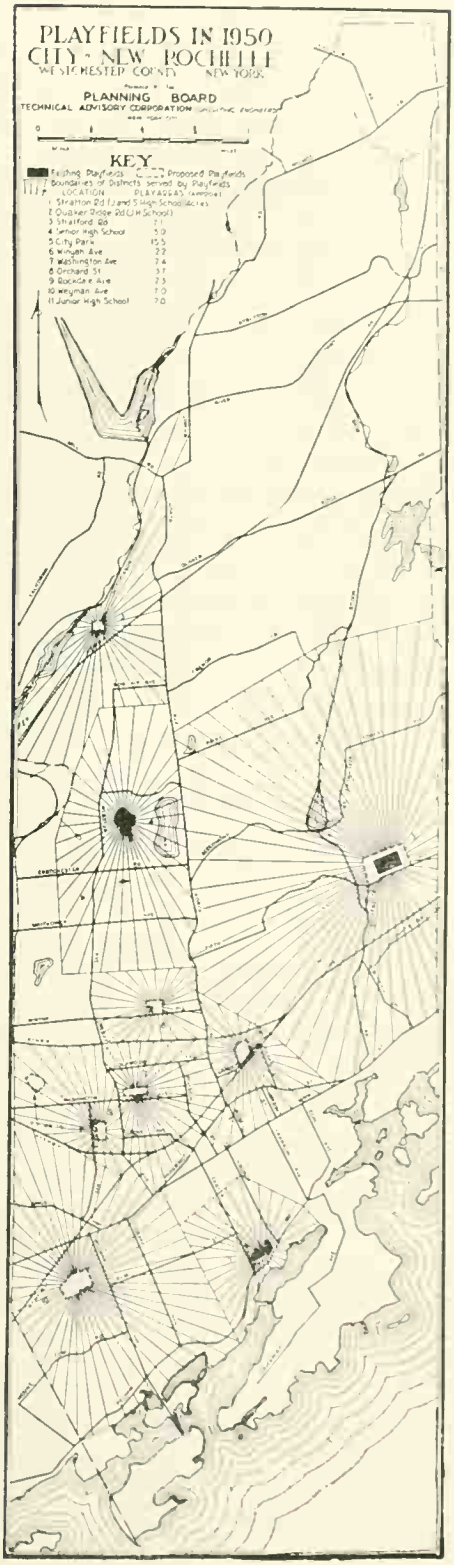
District Playfields

According to the Playground and Recreation Association 10 acres should be the minimum size of a district playfield, and at that they believe that 20 acres is preferable to 10. In standards for high school buildings Professors Strayer and Englehardt state, "No site of less than 10 to 12 acres will suffice for girls' playfields, boys' athletic fields, tennis courts, basket ball courts, volley ball courts, experimental gardens, proper placing of buildings and desirable landscape setting." The Chamber of Commerce of the United recommends that it should not be less than 7 acres, and preferably 12 acres. Mr. Hubbard and the writer have frequently asked for a minimum of 6 to 6½ acres with a larger area wherever feasible.

In playfields and athletic fields about a thousand square feet is needed for each person on a given field at a given time. The Sage Foundation estimates that about one-twentieth of the population from 12 to 24 years of age would be using playfields or athletic fields at any given time. On this basis 50 square feet of ground per person in the neighborhood over 12 years of age should prove adequate. This standard is also adopted by the Chamber of Commerce of the United States. The author's feeling is that with reasonable allowance for the peak load, it would be fairer to assume that 10 per cent. of the population might want to use the playground at one time. In other words, 100 square feet of playfield area should be allowed for each person over 12 years of age in the neighborhood. On this basis an area served by an existing or proposed neighborhood in relation to existing or expected population distribution can be readily calculated.

In any given city, or part of a city, it is easy to determine what percentage of the total population falls within any given age group, and in that way, by comparing the existing or proposed playfield with the existing or expected distribution or population, as shown by Population Spot Maps, it is possible to calculate with a fair degree of accuracy the radius of effective service of any given tract. The accompanying map entitled "Playfields of the City of New Rochelle" shows the effective radius today


PLAYFIELDS
CITY - NEW ROCHELLE
WESTCHESTER COUNTY NEW YORK
PLANNING BOARD
TECHNICAL ADVISORY CORPORATION
KEY
1929 Boundary
1950 Boundary


PLAYFIELDS IN 1950
CITY - NEW ROCHELLE
WESTCHESTER COUNTY NEW YORK
PLANNING BOARD
TECHNICAL ADVISORY CORPORATION
KEY
Existing Playfields
Proposed Playfields
Boundaries of Districts served by Playfields
LOCATION PLAYAREAS (acres)
1 Stratton Rd (Junior & Senior High School Sites)
2 Quaker Ridge Rd (J.H. School)
3 Stratford Rd 7.0
4 Senior High School 5.0
5 City Park 15.5
6 Wingah Ave 2.2
7 Washington Ave 2.4
8 Orchard St 3.7
9 Rockdale Ave 2.3
10 Weyman Ave 7.0
11 Junior High School 7.0

around each existing school and city playfield within the city. On the Population Distribution Map the population was counted off spirally out around each playfield until the population had been found which corresponded to the population which should be served by the actual acreage of the playfield. The same process was applied around each playfield with respect to the population as it willprobably be distributed by 1950, and in each case a much smaller radius of actual service is shown. The areas which are not included within any service radius of 1929 are the areas which need playfield facilities right away, while those much larger areas which are without the service radii of 1950 indicate where additional service will have to take care of growth.

The other map entitled "Playfields in 1950" shows the proposed enlargements of existing playfields and the locations of new ones together with the effective radius of each. It shows that there will be relatively little area in the city except in the extreme northern part that should not be adequately served at the latter date. In locating the new or added recreational areas every endeavor has been made to so distribute them that there will be the minimum of overlapping in the areas of service.

It will be observed that the Senior and Junior High Schools provide some of the playfields but only a part, as they are arranged only for school boys and girls and not for the large number of adults who demand a place for sport and games, whence the additional non-school playfields.

On the other hand Mr. Weir points out that in determining the size of playfields the important factor is not the possible number of patrons but rather the requirement for proper divisional layout of all needed facilities. When one comes to actually try to lay out a minimum effective plan, it is found that 10 acres is about the smallest area within which it can be done satisfactorily, especially if adequate space is allowed for buildings, parking and landscape setting, while an ideal plan would run to 20 or 30 acres.

Athletic Fields

Athletic fields, as distinguished from playfields in that the former are arranged with a stadium, and parking space and are fenced off for paid admission, are practically useless for normal playfield activity. In a place the size of New Rochelle one, or at most two athletic fields, would certainly be large enough to satisfy all the needs of the community. The acutal size of an athletic field is determined by the space requirements of the actual layout of its component parts. From this point of view it is found that 15 or 16 acres is about the minimum area in which adequate provision can be made for a football field with a superimposed baseball diamond, a quarter mile track, a fair sized grandstand with adequate parking space for automobiles and with proper landscape setting. Wherever practicable 20 to 30 acres are preferable. In any case an athletic field should be located so that it is readily accessible from all directions and yet at the same time it should not be so located as to prove a nuisance in a residence area or a barrier to the growth of the district.

Small Neighborhood Parks

A small neighborhood park may range from a triangle or square at the intersection of streets with a few trees and shrubs planted on it up to a fairly large common, public garden, park or even a section of a parkway.

As to distribution there should at least be as many of them as there are playfields and, in fact, more, because normally there should be a park within easy walking distance of every inhabitant of the city. That would mean that there should be some green area within at least half a mile of every part of the community. The Sage Foundation recommends that there should be one acre of neighborhood park for every 3,000 to 5,000 people living within one-third to one-half mile. They also recommend that where density of population is greater the parks should be smaller and nearer together. They assume that one-twenty-fifth of the people within the district would be in the park at one time and that one park acre would be occupied by about 160 people. That would allow about 275 park square feet to every person. This corresponds with certain actual use as determined by experiment.

The writer's own investigations led him to believe that a reasonable area provision for local small parks would be at the rate of 500 people per acre in tenement districts up to 1,000 people in open residence districts. As at least half and possibly two-thirds of the park use could be taken care of by the larger outlying parks and reservations, it would mean that one acre of small neighborhood park should be provided for each 1,000 to 3,000 people in the district.

On either of these bases New Rochelle, with 148.5 acres in local parks and 378 acres in county parks, has a total of 10.5 acres of parks per thousand population, which indicates clearly that as far as total park acreage is concerned New Rochelle has more than adequate provision for the future as well as the present. The fact remains, however, that there are various parts of the town that are beyond normal walking distance—that is beyond one-third to one-half mile—from any of these existing parks. It is in these latter areas that small neighborhood parks should be provided.

Large Parks

The large park is an area "designed to give as far as is consistent with intensive use all the sense of freedom that the unspoiled country gives, and is the nearest thing to unspoiled country that most of the city dwellers can commonly take time to enjoy. It is fitted to receive large crowds and not be spoiled by them for its main use is still to relieve a man from too close contact, with his fellows".*

The Committee on Recreation Problems in City Planning of the National Recreation Congress recommended that parks of this type should range from 100 to 250 acres. There are many such parks in the United States that are much larger, as, for example, Central Park in New York, of over 843 acres. One group of experts recommends that there should be one such park for every 40,000 inhabitants.

The writer's own feeling is that the demand for the larger city park is giving way to a preference for the outlying reservation. That is to say, that people either go to the smaller neighborhood park within easy walking distance or else they get in their automobile, or on a bus, or transit line, or boat, and go out to the large public reservation where they can get real nature without any taint of the city or even of artificiality. In Westchester County, for example, we are convinced that the Westchester County Park Commission is providing all of the larger park area that any of the in-

* Professor Henry V. Hubbard, Harvard University.

dividual communities in the county need now, or will need in the future, at least in addition to their smaller local parks. As the Westchester County Park Commission park areas in, or near each city and town would provide one acre of park for at least every hundred inhabitants, no further provision of large park areas by cities or towns is needed.

Reservations

The reservation or forest park is virtually the same as the large city park except that it is usually left in its natural state, and not landscaped, and it is apt to be larger in area than the park. The reservation particularly lends itself to picnicking and camping and as a place of excursion for the family when out in the automobile. To assure its accessibility by automobile, it should not be more than 50 miles from the city. Normally the reservation should be developed by the county as a part of the county park system, or in some instances by the state, but where a city is isolated and surrounded by rural counties, the provision of a reservation or a large outlying park would have to be assumed by the city itself.

As to the size of reservations, there is no maximum limit except that of cost and the possibility that the reservation may serve as an undesirable barrier to normal growth of the region. However, as to minimum size, it is rarely possible to preserve nature intact in an area of less than 100 to 200 acres. Every city of every size should obviously have at least one such reservation, and in general it may be said that after a city passes 100,000 population a second reservation in another direction out from the city will become desirable.

Special Parks

Bathing beaches are undoubtedly desirable as a part of a playfield, a park or reservation, or even separate. The Sage Foundation recommends that there should be a minimum of one lineal foot of waterfront for each person to use the beach in comfort. The Sage Foundation estimates also showed that not more than one-quarter of the visitors were actually bathing at any one time. Thus, one mile of beach frontage would be ample for 20,000 to 25,000 people visiting the resort at any one time. If attractions of the Coney Island type, or preferably the Manursing Island type, are located behind the beach 2, 3 or even 4 times,—that is possibly 100,000 people—could be accommodated for each mile of beach frontage. As far as Westchester County is concerned the beach front and Coney Island demands of the county have been amply satisfied by the splendid provision of the Westchester County Park Commission at Manursing Island, (Playland, Rye), Glen Island, Croton Point and Tibbetts Brook Parks. Therefore, New Rochelle needs to provide only such additional water front parks as are demanded for the exclusive use of the residents of the city. The present and probable future demand can be amply satisfied by the waterfront parks, which the City now owns.

Such other types of special recreation as may be needed in New Rochelle are being amply taken care of by the Westchester County Park Commission or by private initiative.

Conclusion

Larger city park, public reservation and public bathing beach needs are being amply assured by the Westchester County Park Commission for virtually all munici-

palities in Westchester County. Play lots or kindergarten playgrounds for children of pre-school age should be assured by private developers, both in city housing groups and in subdivisions, from tenement and apartment districts to the most open suburban residential areas. The provision of block center play lots for children under 5 years of age should be encouraged and wherever practicable required by ordinance.

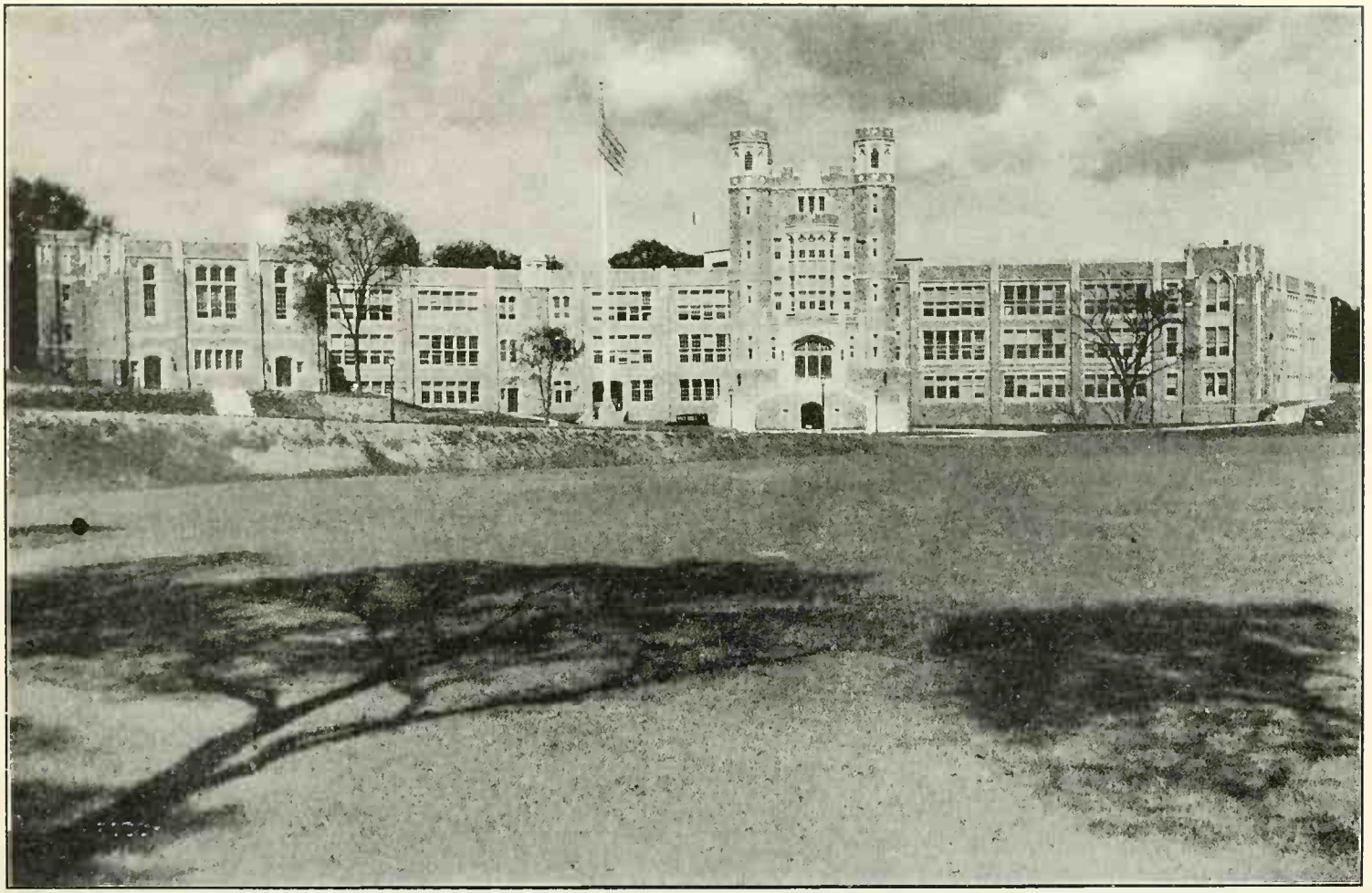
Playgrounds for children of school age up to 12 or 14 years of age should logically be provided directly in conjunction with public and private schools. The same is desirable for playfields for school children in the senior high schools and upper years of the Junior high schools and for adults who demand active play space. Many of these playfields will have to be provided separate from the schools.

Athletic fields for exhibition games should be provided in every city of 50,000 to 100,000 people or more either under the auspices of the School Board or the Park Department with the help of private subscriptions wherever desirable.

Local neighborhood parks should be provided by the City wherever not now within easy walking distance of residential parts of the city.

The aggregate public playground and playfield needs of the community of all sorts would amount to at least one acre for every 1,000 inhabitants of the city. On this basis the present 23.5 play acres in New Rochelle would be only half enough for the present 50,000 population and only about one-quarter enough for an eventual 100,000 population.

On the basis of one acre of park—municipal or county—for every 200 inhabitants, the present total area of 526.5 acres is ample for an eventual population of 100,000 people. Therefore, the only park problem in New Rochelle is the provision of a few small parks in those parts that are too far from existing parks, and in particular a very radical increase in the number and size of playground and playfields.



ISAAC YOUNG HIGH SCHOOL

Appendix III

SCHOOLS AND PLAY YARDS*

Distribution, Size and Urgency

It is the duty of the Board of Education in any city to select new school sites and to determine when the new facilities shall be made available. Obviously they are better qualified than any other body to undertake this service. However, even with the utmost care and thought and with the best of intentions it has often proved most difficult for a School Board to avoid mistakes in the selection of school sites because of the limited information heretofore available concerning the probable future development of the city.

In cities that have Planning Boards it has been found that this board can be of material service to the School Board in placing at its disposal not only a mass of new information and studies with regard to the character, direction and intensity of growth of the city but also with regard to the desirable development of the city. The future population growth and distribution studies, the plans for thoroughfares, parks, parkways and playfields, the studies of transportation and transit facilities offer a new basis for prognostication far more accurate than anything heretofore available.

It is most important from the standpoint of the City Plan that the location and size of schools and their plots should be determined in accordance with the City Plan as a whole. A school should not be located on what may become a main artery or in an eventual business or industrial district. Often a school can be combined to good advantage with a park or playground. The limits to the income of any city necessitate balancing expenditures for new schools with those for other important public improvements if the City is to work out a practical as well as a comprehensive long term capital budget.

The Planning Board, therefore, in its problem of locating all public buildings from the standpoint of the City Plan must first make a point of finding out just what are the basic policies which the Board of Education desires to maintain, and then use these as a point of departure in its studies of school location in relation to the rest of the City Plan.

The following assumptions are customary in such a study of the school and school yard expansion program:

1. That a comprehensive zoning plan will be in effect and that the rest of a comprehensive city plan will be carried out at least in its major features.

2. That the population growth and the population distribution studies upon which the estimates for future enrollment are based are reasonably accurate.

3. That there will be no considerable reduction in the size of families.

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* By George B. Ford of the Technical Advisory Corporation.

4. That there will be no radical change in the public school attendance tendencies: that is, that the proportion of the various age groups attending public schools at present will remain about the same. This also includes the assumption that about the same proportion of the school-age population will attend parochial and private schools as at present.

5. That the present boundaries of school districts can be adjusted to changing conditions.

To obtain full information concerning existing conditions with respect to the present school plan the following data is currently recorded for each school:

1. Name of school.
2. Location.
3. Number of permanent classrooms.
4. Capacity of permanent classrooms.
5. Number of permanent seats.
6. Grades in school.
7. Enrollment and attendance.
8. Seats needed or now vacant.
9. Present population in school district.
10. Area of plot in acres including building.
11. Net play area now needed.

From this data the "enrollment factor" can be determined for the various school districts. The enrollment factor represents the proportion of the total population of a school district enrolled in the school. These factors vary considerably in different parts of the city, depending on the nationality and social and economic status of the inhabitants. They should be corrected by any tendency to change that a given district may show. The multiplication of these enrollment factors by the estimated future population of each district would present a fair approximation of future local conditions respecting schools and school yards.

Before attempting to distribute future schools the following standards have been assumed with regard to the size of schools and their play yard spaces:

1. A desirable size for elementary schools is one with a seating capacity of 800 or possibly 1,000 pupils.

The size of junior high schools would normally be kept under 1,500 seats, although there appear to be few objections to somewhat larger buildings.

The maximum size for a senior high school is assumed as 2,500 or possibly 3,000 pupils, although 5,000 pupils is not considered to be an impossibility.

2. The capacity of regular classrooms used in the calculation of the number of rooms needed would be assumed to be 35, 30 and 30 respectively for elementary, junior and high school grades, unless local economic conditions obligate a lower standard.

3. Play yard space should be provided in connection with each elementary and junior or senior high school on the basis of a minimum of 25 square feet per pupil in the elementary schools, 50 square feet per pupil for the junior high schools and senior high schools.

4. To provide for the proper setting of school buildings, for adequate playground space and for possible future expansion, 4 to 5 acres should be assumed as the minimum size of plot for new elementary schools; 6 to 10 acres for new junior high schools and 10 to 20 acres for senior high schools, although even larger plots are highly desirable wherever land is cheap enough.

In determining the number of school rooms and buildings and the play space needed an exhaustive study of the facts was made to see where it would be more desirable to add to a present school and school yard, where to abandon an existing school entirely, and where it would be better to build new.

While making these studies the following factors were considered:

1. Adequacy of size of plot.
2. Practicability of shape of plot.
3. Topography and setting.
4. Reasonableness of cost of land.
5. Least number of existing improvements to be removed.
6. Adequacy of possible playground development on the same or adjacent site.
7. Possibilities of using other existing public playgrounds or other city-owned properties nearby for play space.
8. Avoidance of business and industrial districts and uses.
9. Avoidance of nuisances and also of hospitals and cemeteries.
10. Avoidance of the dangers of thoroughfare traffiic and railroad grade crossings.
11. Location central to school district.
12. Accessibility.
13. Nearness to existing and proposed thoroughfares, transit and bus lines.

Taking the case of New Rochelle in particular, a study was made of the comprehensive report submitted in 1927 by Professors George D. Strayer and N. L. Englehardt of Teachers College, Columbia University, entitled "A School Building Program for New Rochelle, N. Y." Consultations were held with representatives of the School Board, following which the conclusions shown below were reached with regard to the expansion program.

The population of New Rochelle is increasing at the rate of over 2,000 people each year. The public school enrollment is a little over 16 per cent. of the total population. That means from 320 to 350 pupils will have to be housed each year. Over a peroid of 15 years from 5,000 to 6,000 additional school children will have to

be housed. According to Professors Strayer and Englehardt even this estimate is conservative and will be increased by the expansion of the junior high school facilities already planned and by the provisions of more ample kindergarten facilities. In other words, from 10 to 12 new rooms must be furnished each year just to catch up with the growth with no allowance ahead for the future.

At the present time in New Rochelle there are ten elementary schools, three junior high schools, and one senior high school. Nearly all of these schools are at least approaching capacity, and the necessity for new schools has become very apparent.

Seating Capacity of Existing Schools
New Rochelle
1929

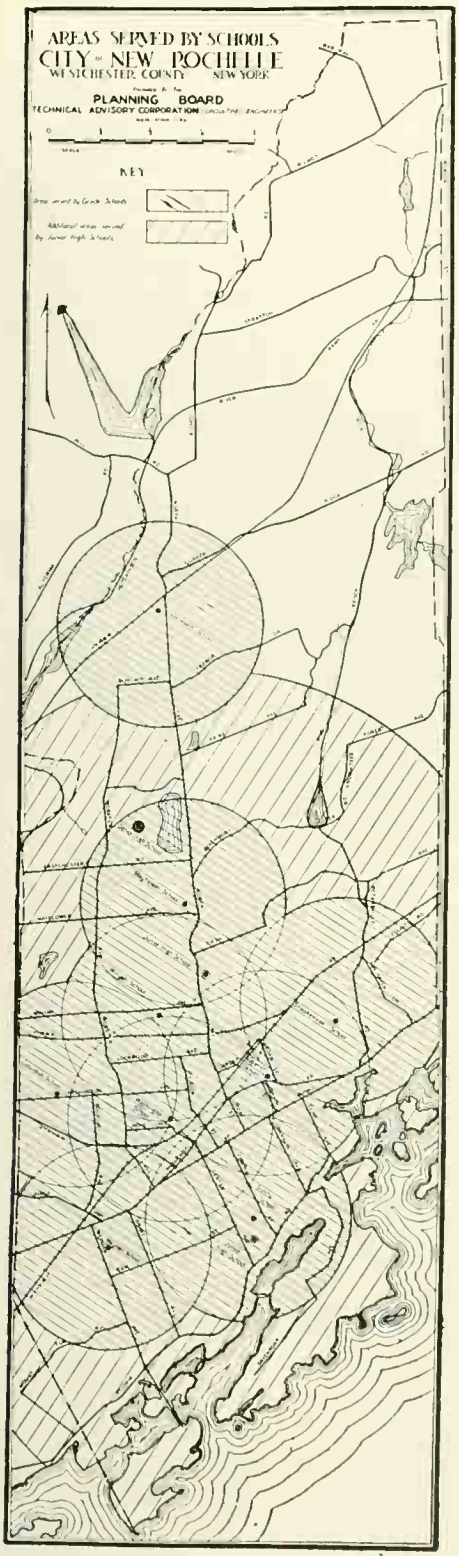
	Seats	Registration April 1929	Extra Seats
Senior High School	32×30= 960	1,087	—127
Central J. H. S.	38×30=1,140	902	+238
I. E. Young J. H. S.	30×30= 900	793	+107
Columbus J. H. S.	14×30= 420	203	+217
Trinity School	21×35= 735	584	+151
Washington	19×35= 665	584	+ 81
Huguenot	14×35= 490	413	+ 77
Jefferson	14×35= 490	565	— 75
Lincoln	22×35= 770	607	+163
Mayflower	19×35= 665	705	— 40
Columbus	21×35= 735	863	—128
Roosevelt	11×35= 385	367	+ 18
Stephenson	19×35= 665	622	+ 43
		8,295	

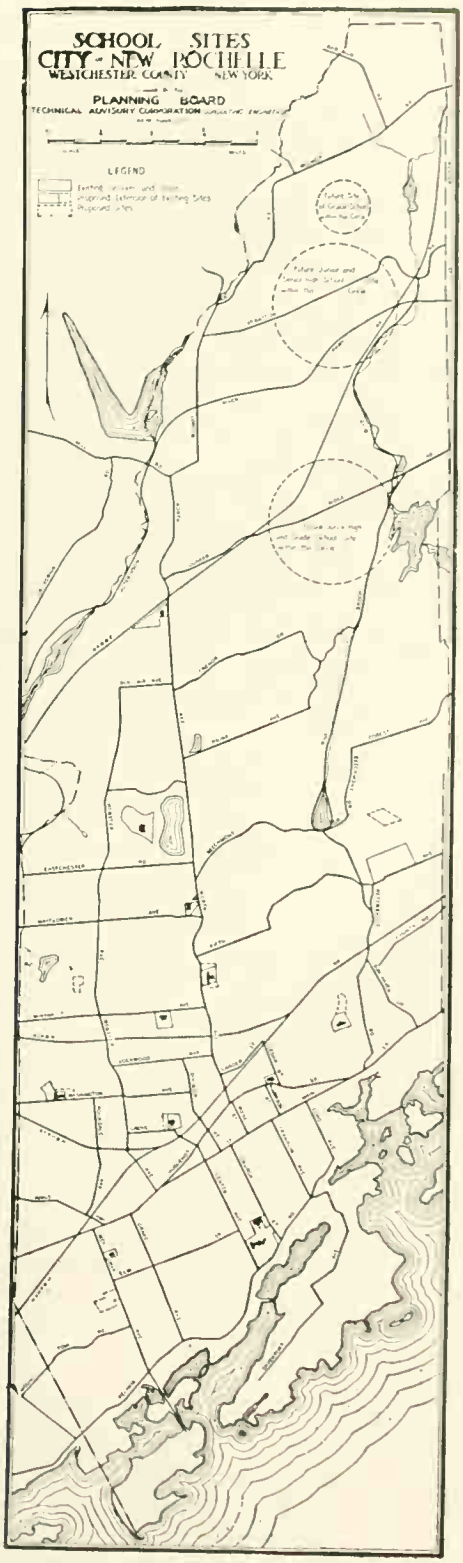
Increase in Pupils and Rooms
New Rochelle

	Grade School 64% of Total	Extra Rooms Needed in All	Junior High School 23% of Total	Extra Rooms Needed in All	Senior High School 13% of Total	Extra Rooms Needed in All	Total	Extra Rooms Needed in All
1930	6,446	+ 21	2,316	— 5	1,310	+ 5	10,072	+ 21
1935	7,629	+ 61	2,741	+ 9	1,550	+14	11,920	+ 84
1940	8,753	+ 98	3,144	+23	1,778	+21	13,675	+142
1945	9,817	+134	3,528	+35	1,994	+28	15,339	+198
1950	10,763	+165	3,868	+47	2,186	+35	16,817	+247

Accompanying maps show the areas served or not by existing schools and the distribution of school districts. The Comprehensive City Plan shows the proposed sites for future schools.

The present School Board of New Rochelle has shown admirable foresight in the formulation of definite plans to provide for the future increase in registration. They have recently outlined a program for four new school sites, most of the property has been purchased, and plans are being drafted for the needed buildings.


AREAS SERVED BY SCHOOLS
CITY OF NEW ROCHELLE
WESTCHESTER COUNTY NEW YORK
PLANNING BOARD
TECHNICAL ADVISORY CORPORATION
KEY


SCHOOL SITES
CITY OF NEW ROCHELLE
WESTCHESTER COUNTY NEW YORK
PLANNING BOARD
TECHNICAL ADVISORY CORPORATION
LEGEND

The future school sites recommended by the Planning Board as a part of the comprehensive plan are intended to be an indication of the kind of site and the location that is desirable from the standpoint of the City Plan rather than a specific recommendation for the purchase of a particular piece of property. It is always to be expected that when the School Board has arrived at the point where it is actually ready to buy any specific new site or extension to an existing one it would use these recommendations as a point of departure. Furthermore the actual size and shape of grounds as shown on the Comprehensive City Plan map and the recommended dates of acquisition or construction are typical and relative and can well be varied depending on condition as they may be at the time when the Board of Education is ready to purchase the property.

Appendix IV

THOROUGHFARE AND TRANSIT SYSTEM*

Method of Distribution

Traffic regulation is at best a stop-gap, a temporary expedient or palliative for facilitating the flow of traffic until such time as a permanent solution of the traffic problem can be worked out. It is true that by ingenious traffic and parking regulations it is often possible to postpone even for a long period of years various street or roadway widenings or other public improvements. However, in every case sooner or later, as the traffic grows, adequate permanent street capacity has to be found.

Street improvements are costly at best. It is decidedly unfair to the taxpayer to impose on him any unnecessary street widenings or extensions or to undertake them before they are actually necessary. Today most City Councils are merely "guessing" as to where street widenings and extensions should be carried out, and unfortunately they often guess wrong. The result is an annual waste of tens of millions of dollars throughout the country on certain street improvements that are in the wrong place or ahead of their time. If it is reasonable to calculate the eventually needed size of sewers and water mains before they are laid in the ground, surely it is equally reasonable to make every endeavor to calculate mathematically the location, size and date of undertaking of highway improvements.

Obviously, the first thing to do in studying highway problems as a practical business proposition is to know the real facts. Even the best of traffic police is often wrong in his guess as to the relative traffic flow on two principal thoroughfares.

Traffic counts are the only known way of securing the essential facts with regard to the character and intensity of the movement of existing traffic. However, traffic counts are apt to be a rather wasteful procedure unless their ultimate use is carefully determined before any counts are made. The objective in making traffic counts is to determine for each of a number of key-points on the principal highways the average number of vehicles per hour in both directions on typical week days during the spring, fall and summer, and also to know the maximum number of vehicles per hour in one direction at the time of the peak load on Sundays, holidays or possibly on week days. In the typical case of New Rochelle it was found that if traffic counts were made at 15 carefully located intersections of major highways a complete picture of the general traffic flow could be obtained. In practice it works out roughly that one traffic counting station is adequate for every 2,500 to 3,000 of the population of the municipality.

In making the counts soundings of varying lengths were made on typical days, both week days and Sundays, from the middle of August until after Labor Day. At each station heavy trucks, buses and trolley cars were counted separately. No attention was paid to the very limited number of horse-drawn vehicles except where their

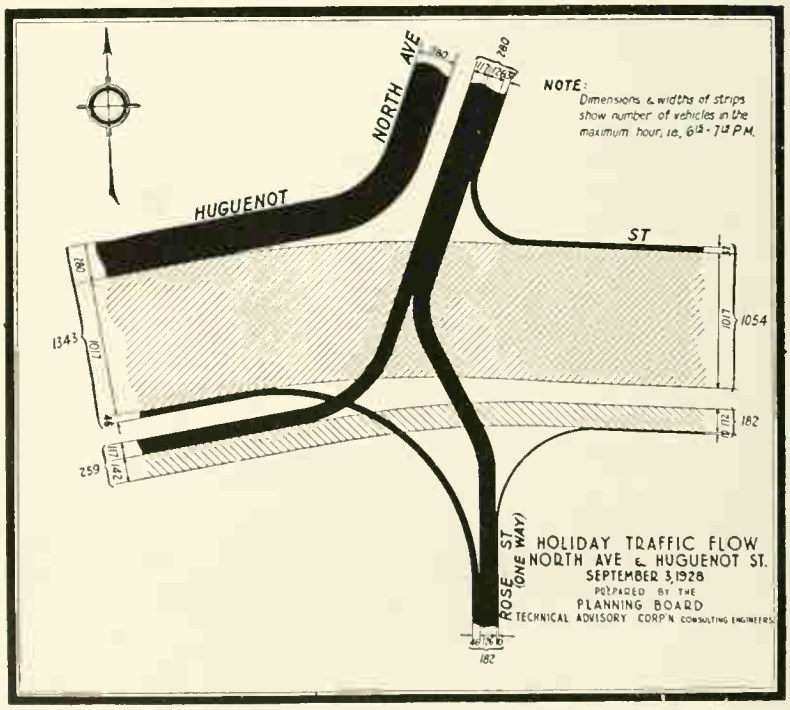
* By George B. Ford of the Technical Advisory Corporation.

slow retarding movement warranted their being counted with heavy trucks. At each station the number of vehicles turning in each direction was counted separately so that at each intersection a complete picture was obtained of the distribution of traffic.

From this data a new type of traffic flow diagram was prepared. On one side of the center line of each main highway was shown a band, whose width corresponded to the average number of vehicles per hour in both directions. On the other side of the center line a band of another hatching was shown corresponding to the maximum number of vehicles per hour in one direction at the peak load period. The former shows the total number of moving lanes that are needed to take care of the existing average traffic. The latter shows the additional roadway capacity that will be needed if the City is prepared to take care of the peak load without congestion or delay.

The traffic flow diagram brings out a rather remarkable fact, and that is that uniformly all over the city the average traffic flow in both directions is almost exactly the same as the maximum traffic flow in one direction. As a general proposition this would mean that nearly twice as much roadway capacity is needed to satisfy peak load traffic as is needed to take care of average traffic. The responsibility of the municipality, county and state to handle this traffic without congestion lies somewhere in between satisfying the average and the maximum traffic.

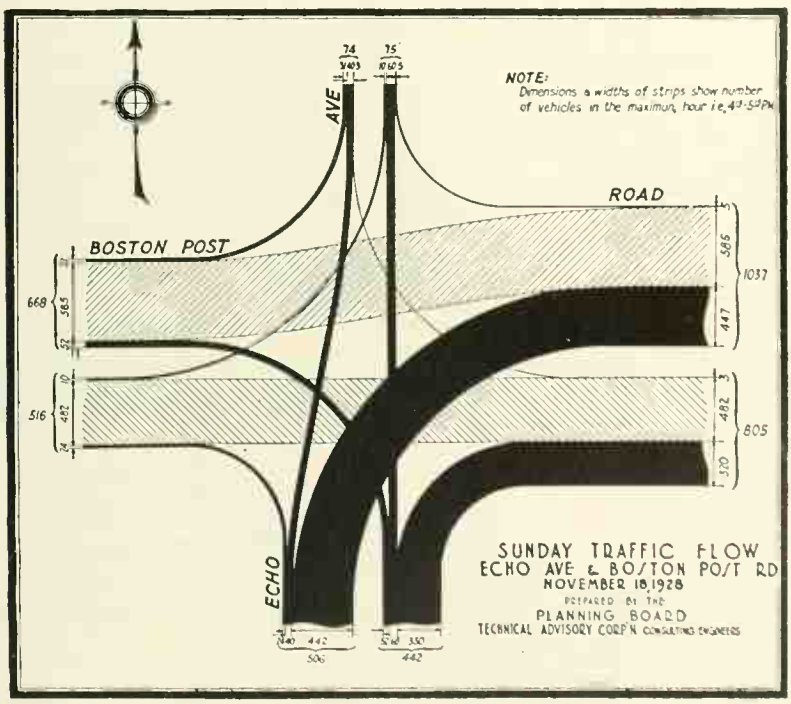
In New Rochelle special traffic flow diagrams were made for the two worst intersections. On a summer holiday the traffic on Huguenot Street, which is the westbound half of the Boston Post Road, was two and one-half times as great as the total traffic on North Avenue, the principal intersecting street. Furthermore, the traffic

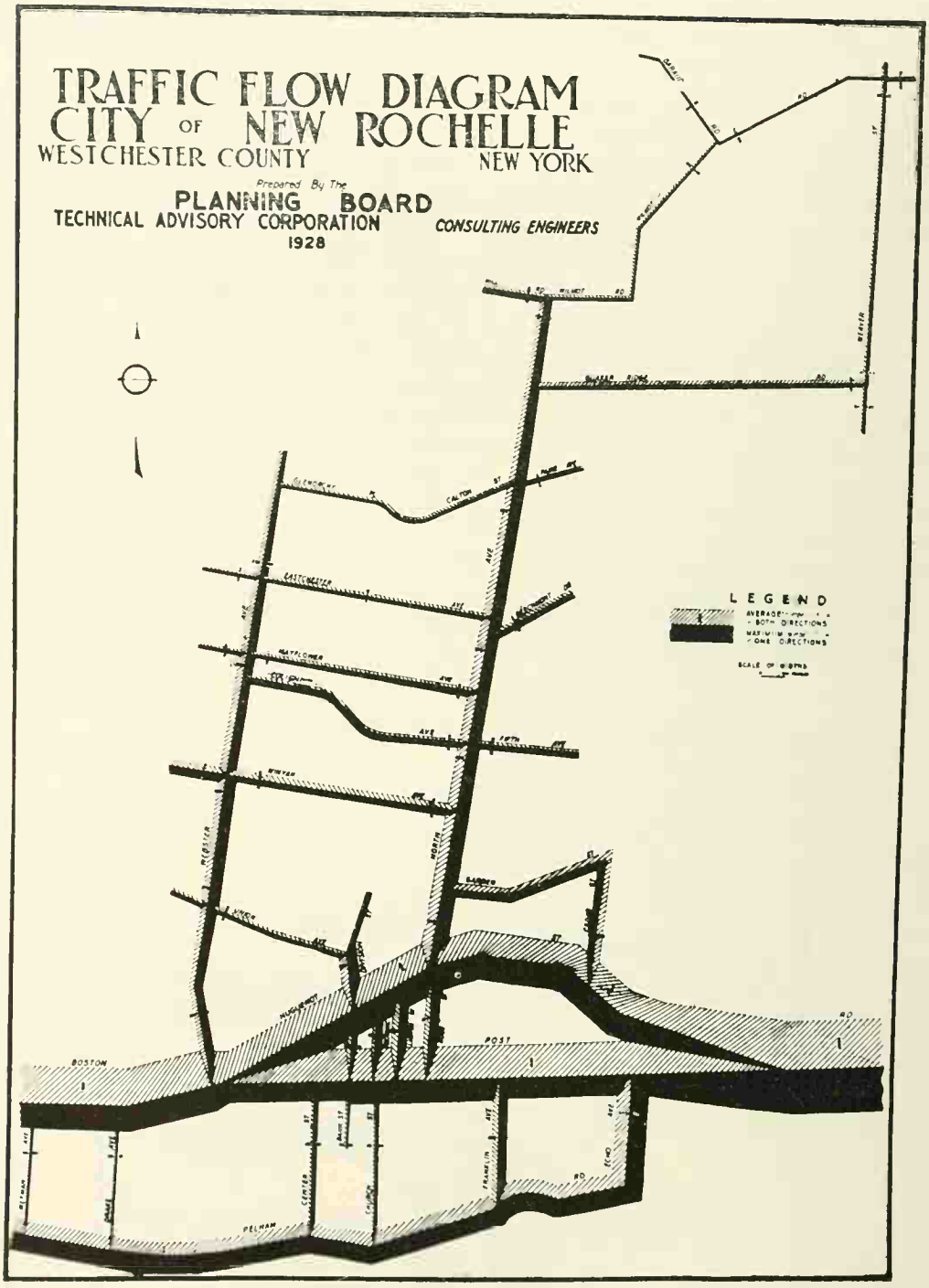


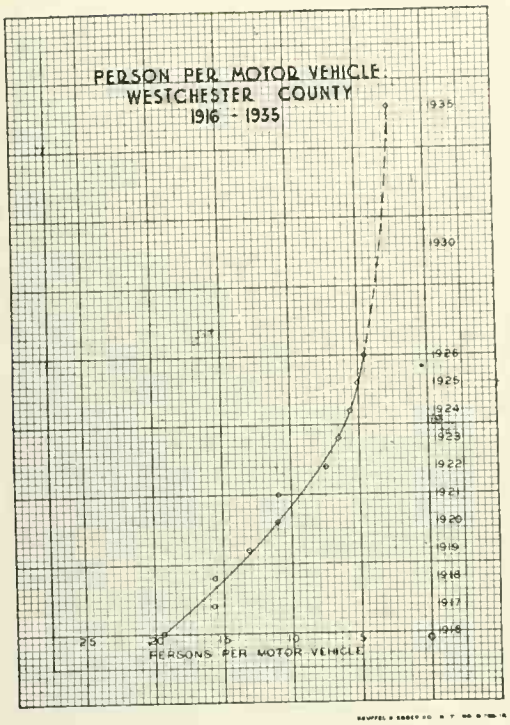
which actually crossed Huguenot Street was less than a quarter of the traffic on the Post Road. Thus, quantitatively the traffic interference at this corner during peak load periods is relatively unimportant and can probably be handled with entire satisfaction by the usual police traffic control.

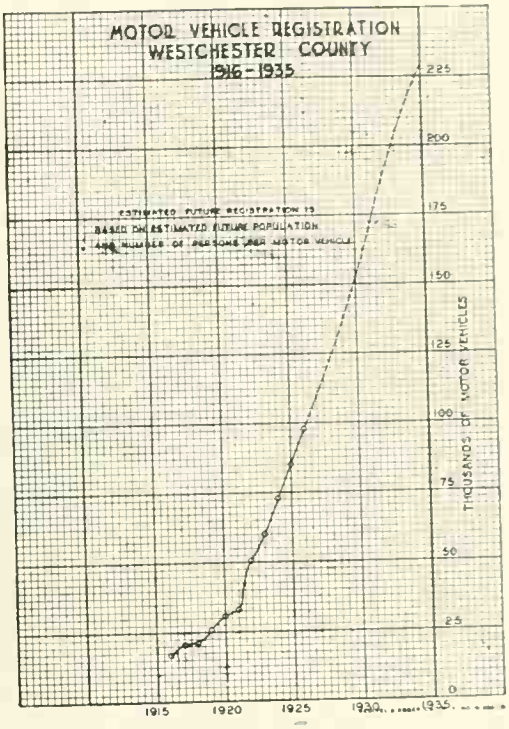
On the other hand, the special traffic flow diagram for Sunday traffic at the corner of Echo Avenue and the Boston Post Road shows almost as many vehicles making a right or left hand turn between Echo Avenue and the Post Road as there are vehicles traveling along the Post Road itself. The result is the worst congestion to be found in the whole length of the Post Road and one which calls for immediate and drastic relief.

The next problem is, What about the future? How rapidly is traffic increasing and how much more traffic will we have to take care of 10 or 25 years hence than we have today? The accompanying curve entitled "Persons per Motor Vehicle, Westchester County, 1916-1935" indicates that whereas today there are in Westchester County from 3½ to 4 people per automobile, by 1935 the number will probably be reduced to 2½ people per vehicle with possible saturation a number of years hence of one automobile to every 2 people. Motor vehicle registration, as shown by the accompanying curve, should jump from the present 140,000 vehicles registered in Westchester County to a total of about 225,000 by 1935. Obviously registration increases as the population increases multiplied by the increasing number of vehicles per family, all of which means that motor vehicle registration is bound to increase much more rapidly than population, as is shown by the accompanying curve prepared recently with regard to New Jersey conditions.




TRAFFIC FLOW DIAGRAM
CITY OF NEW ROCHELLE
WESTCHESTER COUNTY
NEW YORK
Prepared By The
PLANNING BOARD
TECHNICAL ADVISORY CORPORATION
CONSULTING ENGINEERS
1928
LEGEND
BOSTON
POST
PELHAM



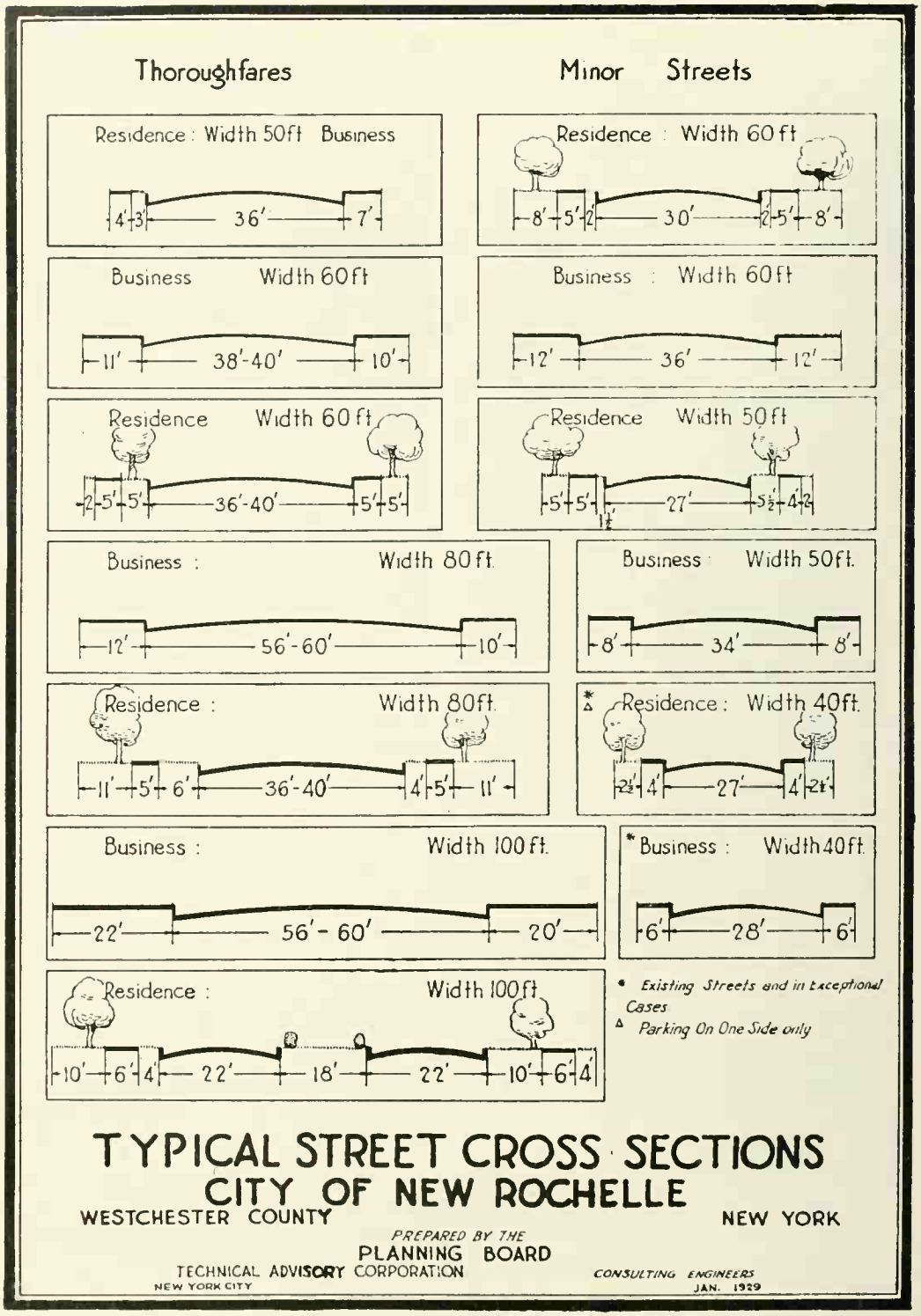


The same New Jersey study shows that highway traffic is increasing a little more rapidly than population increases. No corresponding figures are yet available for New York State, but it is reasonable to suppose they would be approximately the same.

As to how fast and how much traffic will increase in Westchester County and about New Rochelle in particular, fortunately the State and County Highway Departments, the Westchester County Park Commission and various other agencies have made exhaustive studies of present and probable future traffic growth and have arrived at the conclusion that on the main trunk line highways traffic is doubling every 4½ years, and that eventually these main highways will probably have to carry anywhere from 3 to 15 times the amount of traffic that they are carrying today. There is a pretty general consensus of opinion that the minimum should be nearer 5, and the maximum nearer 10 or 12 times the amount of the present traffic.

On other highways, not the main trunk highways, the consensus of opinion is that they will be called upon to bear from 5 to 8 times the present number of vehicles, whereas the minor purely local highways will probably reach saturation with 3 to 5 times the present traffic flow.

The capacity of each 10-foot traffic lane varies from 400 to 2,000 vehicles per hour, according to actual counts. The lowest figure is for central business streets with active trolley tracks on them and much intersecting traffic from cross streets. If there are no trolley tracks, this minimum can be increased to 600 vehicles per hour. As intersecting traffic becomes less the capacity per lane increases so that on the ordinary


Thoroughfares
Minor Streets
Residence : Width 50ft Business
4' 3' 36' 7'
Residence : Width 60 ft
8' 5' 2' 30' 2' 5' 8'
Business Width 60ft
11' 38'-40' 10'
Business : Width 60ft
12' 36' 12'
Residence Width 60 ft
2' 5' 5' 36'-40' 5' 5'
Residence Width 50ft
5' 5' 27' 5½' 4½'
Business : Width 80 ft.
12' 56'-60' 10'
Business : Width 50ft.
8' 34' 8'
Residence : Width 80ft.
11' 5' 6' 36'-40' 4' 5' 11'
* Δ Residence : Width 40ft.
2½' 4' 27' 4' 2½'
Business : Width 100 ft.
22' 56'-60' 20'
* Business : Width 40ft.
6' 28' 6'
Residence : Width 100ft
10' 6' 4' 22' 18' 22' 10' 6' 4'
* Existing Streets and in Exceptional Cases
Δ Parking On One Side only
TYPICAL STREET CROSS SECTIONS
CITY OF NEW ROCHELLE
WESTCHESTER COUNTY NEW YORK
PREPARED BY THE
PLANNING BOARD
TECHNICAL ADVISORY CORPORATION
NEW YORK CITY
CONSULTING ENGINEERS
JAN. 1929

country highway with relatively infrequent cross traffic a capacity of 1,500 vehicles per hour is not infrequent. Two thousand per hour is reached only on grade separated highways, or on bridges and in tunnels.

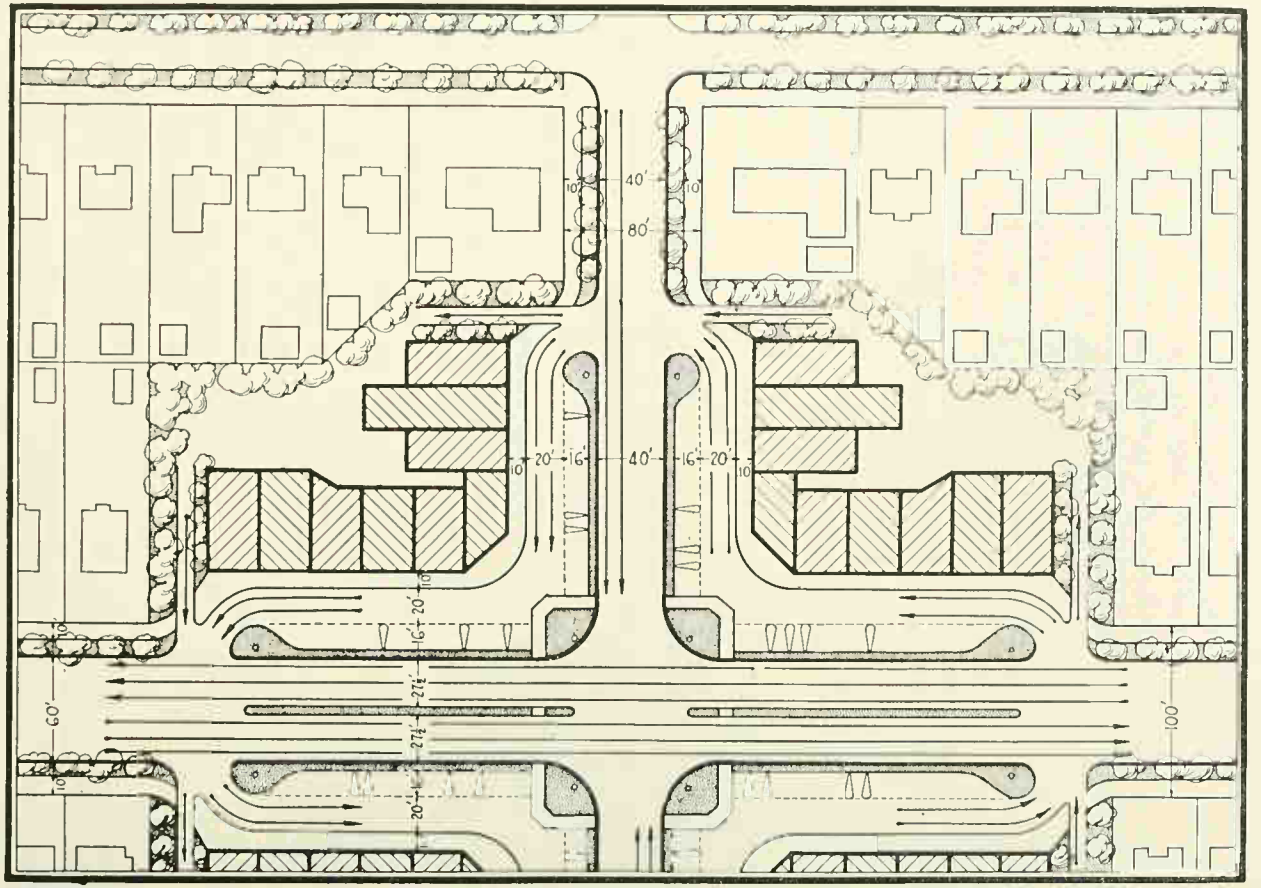
Whereas it is generally recognized throughout the country that each moving traffic lane should be a standard 10 feet in width for speed and safety, nevertheless a 9-foot traffic lane is still feasible where speed and safety are less important. With these figures in mind a study of the traffic flow diagram for New Rochelle shows that both Huguenot Street and the Post Road, throughout the sections where they have only one moving traffic lane in each direction, have already virtually reached capacity. Pelham Road and Echo Avenue have very nearly reached it, and the lower part of North Avenue is rapidly approaching it, whence the urgency of finding relief right away. The proposed width of highways, roadways and rights-of-way should be proportionate to the calculated eventual traffic. If it is found that one moving traffic lane in each direction will be sufficient to take care of future traffic, then a 40-foot roadway, or in some cases 38 or even 36 feet, will be ample, which means that a 60, or at most a 66, foot street will suffice. This would mean a 10 to 12 foot sidewalk, which would be ample for everything except an unusually active shopping district. Counts show that each one foot of sidewalk width is adequate for 1,000 pedestrians per hour.

If more than one moving traffic lane in each direction, but not more than two, are necessary, 60 down to 56 feet of roadway are sufficient with a 10 to 12 foot sidewalk, which would give a total right-of-way width of 80 feet. If greater sidewalk capacity is needed, this should be increased to perhaps a maximum of 86 feet.

Where the present traffic can be taken care of by a 40 to 46 foot roadway, but eventually a 60 to 66 foot roadway will be needed, a right-of-way width of 80 feet can be so laid out in cross section as to provide easily for the eventual roadway widening without interfering with street trees or sidewalks.

The safest width for a main highway, whose future traffic can only be calculated with difficulty, is 100 feet, as this permits an immediate roadway 56 to 60 feet wide or two 22-foot roadways with a 16 to 18 foot grass strip between them, all of which permits an eventual widening to a single 76 to 80 foot roadway. In most cases any wider right-of-way than 100 feet is unnecessary, except in so far as wider grass strips would add to the appearance of the street or wider sidewalks may be needed for exceptional pedestrian travel. By the time a 76 to 80 foot roadway is filled to capacity it would be fare more preferable in the majority of cases to divert the excess traffic to another parallel relieving street rather than to further widen the roadway on the first street. Roadways decrease rapidly in efficiency and increase rapidly in danger if they are widened to take care of more than three moving lanes plus one parking lane in each direction. Beyond that point the grade-separated super-highway with the minimum number of ramps leading into it is the ideal.

The roadway with an odd number of moving traffic lanes, for example 46 to 50 feet wide, leads to confusion and danger in the movement of traffic. It actually handles only a little more traffic than a two moving lane street. It should be used only where the cost of street or roadway widening prohibits a four moving lane street or where traffic can be regulated to one direction.



DESIGN FOR SMALL NEIGHBORHOOD BUSINESS CENTER

TECHNICAL ADVISORY CORPORATION

Consulting Engineers New York

With regard to minor streets 27 to 30 feet of roadway on the lesser traveled streets and 34 to 36 feet of roadway on the more traveled minor streets is sufficient for practical purposes. However, streets that are paved less than 34 feet wide should have their street trees and sidewalks so located in the street cross section that another half lane can be added on either side of the roadway whenever needed without having to change the trees or sidewalk.

With regard to parking it should not be necessary to have to prohibit it except near intersections on principal streets where parking should be prohibited anyway to allow vehicles to reservoir while waiting for the green light.

In the local business centers where it is possible to start afresh, it is highly desirable to set the business buildings back about 25 feet from the property line to allow for adequate approach, parking and sidewalk space in front of the stores, entirely out of the main stream of through traffic. The accompanying diagram shows the ideal, yet thoroughly practicable method of solving this problem.

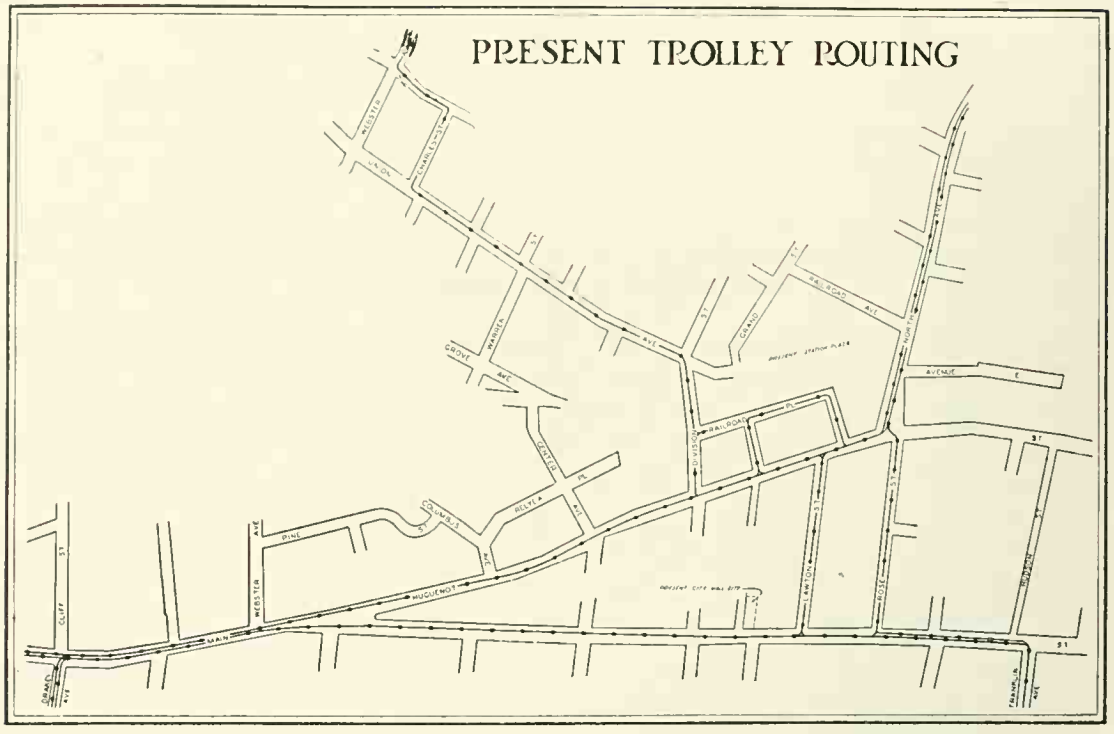
In principle the objective in creating a highway system is to force, or rather to encourage, all through traffic to keep to certain main streets, thereby leaving the minor streets quiet, clean and safe. Obviously, near the business and transportation centers the main traffic routes would have to be nearer together, whereas in the outlying sections they should be farther apart. Schematically the system would be like a spider's web with a number of radial highways on which would be superimposed rings of cross connecting highways all constantly farther apart as they recede from the center.

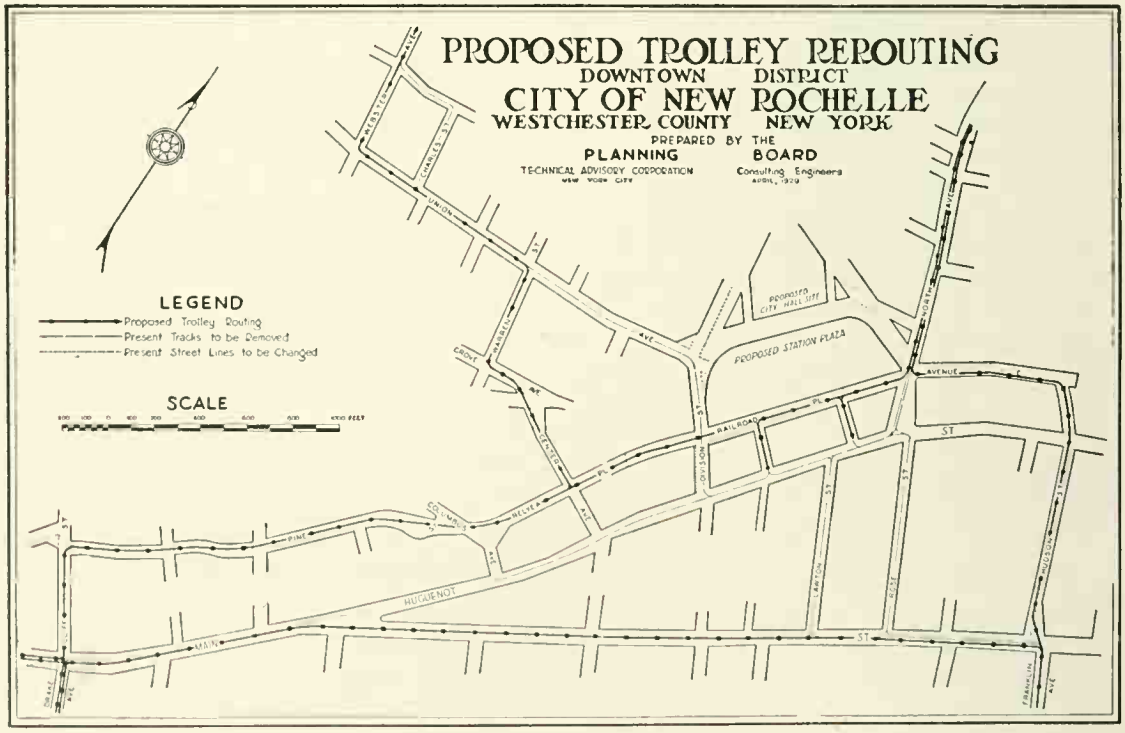
In practice this ideal system is adjusted to existing conditions. Existing streets are made as far as possible to fit into the highway system and serve as highways. Where this is impracticable because the existing streets are not wide enough or do not lie in the right direction, the City Plan will have to provide for highway widenings, extensions and for new highways as the case might be.

If more capacity is desirable on an existing highway, the first step is to see if one or two more traffic lanes cannot be secured by widening the roadway and pushing back the curbs at the expense of the sidewalk. Often this is possible, but wherever it leaves the sidewalk too narrow for practical use, either now or eventually, it will become necessary to provide the additional traffic capacity, logically, by widening the highway itself; that is, by pushing back the buildings on either side to gain the additional right-of-way width.

If this is not feasible on account of the prohibitive cost of expropriation or pushing back the fronts of the buildings, then the next step is to create a parallel relieving street which could serve to divert the surplus traffic.

In laying out such a highway system every attention should be given to creating the least amount of damage and greatest amount of gain to abutting and nearby property owners. This is the test of a good plan. The ideal highway system would not only serve traffic efficiently, but it would also pay for itself from the new property values and ratables created along the frontages of the improved streets.


PRESENT TROLLEY ROUTING
WEBSTER
CHARLES ST
UNION
AVE
ST
GRAND
RAILROAD PL
PRESENT STATION PLACE
NORTH
AVENUE
E
GRAND
MANNA
AVE
CENTER PL
DAVISON
RAILROAD
PL
ST
COLUMBUS
BELVIA
AVE
PINE
AVE
WEBSTER
HUGUENOT
PRESENT CITY HALL SITE
LAWTON
ST
ROSE
GARDEN
ST
CLIFF
ST
MAIN
DREW
AVE
FRANKLIN
AVE


PROPOSED TROLLEY REROUTING
DOWNTOWN DISTRICT
CITY OF NEW ROCHELLE
WESTCHESTER COUNTY NEW YORK
PREPARED BY THE
PLANNING BOARD
TECHNICAL ADVISORY CORPORATION
New York City
Consulting Engineers
APRIL, 1929
LEGEND
Proposed Trolley Routing
Present Tracks to be Removed
Present Street Lines to be Changed
SCALE
PROPOSED CITY HALL SITE
PROPOSED STATION PLAZA
WEBSTER
CHARLES ST
UNION
AVE
ST
GRAND
RAILROAD PL
NORTH
AVENUE
E
GRAND
MANNA
AVE
CENTER PL
DAVISON
RAILROAD
PL
ST
COLUMBUS
BELVIA
AVE
PINE
AVE
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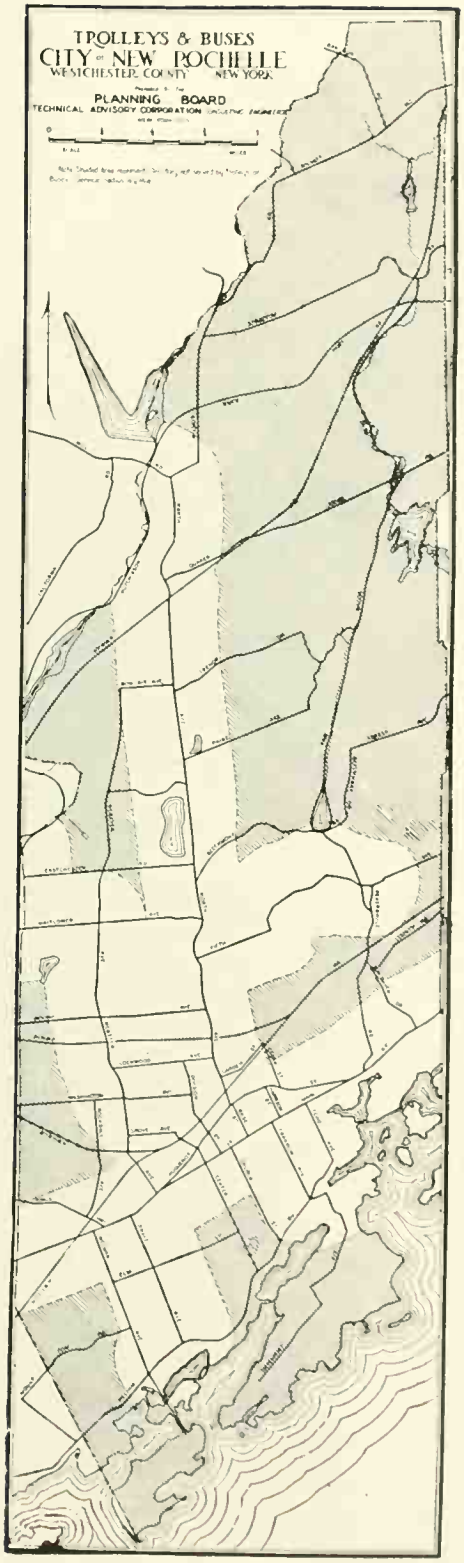
FRANKLIN
AVE


TROLLEYS & BUSES
CITY OF NEW ROCHELLE
WESTCHESTER COUNTY NEW YORK
PLANNING BOARD
TECHNICAL ADVISORY CORPORATION

Transit

In cities where trolley cars still exist, such as New Rochelle, they have a marked effect on traffic and for as long as they continue to exist they should be so relocated as to cause the least obstruction to general vehicular traffic.

The routes which the trolleys now follow through New Rochelle encumber all of the principal heavy traffic streets so that there is no main highway along which one can proceed without the interference of trolley cars. The place where the trolley cars cause the most congestion and the most delay is on Huguenot Street, which is one of the two principal business streets of the city. At present there is no parallel relieving street, to which the tracks now on Huguenot Street could be shifted. However, it is proposed as part of the City Plan to create a new through relieving street made up of extensions and connections along Pine Street, Relyea Place, Railroad Place and Avenue E, with a connection into North Avenue at one end and a connection into Hudson Street and Huguenot Street at the other end. If the trolley tracks now on Huguenot were to be shifted over entirely to this proposed through street along Pine Street and Avenue E, Huguenot Street would be far more effective for business. The one-way trolley tracks on Main Street would probably have to stay there for the time being, as the trolley tracks interfere less with traffic there than they do on Huguenot Street. Meanwhile the circuitous trolley line now following down Union Avenue and Division Street would be moved over to Warren Street and Center Avenue, thereby taking it away from the congestion of Division Street and leaving Division Street entirely free and open as a traffic artery.

The trolley traffic which now goes along Lawton and Rose Streets would be taken away from that congestion and moved over to Hudson Street which would be extended on into Avenue E. This would not only mean the reducing of congestion on Huguenot Street, but it would provide an attractive new business center along the new parallel street. It would create a lot of additional parking space for automobiles and at the same time it would bring added assessable land values to the City—enough eventually to probably pay the entire cost of the improvement.

This project would create a large unencumbered group of business streets where business could expand effectively with plenty of parking space for automobiles, with smooth running traffic unencumbered by trolley cars except along the bordering streets.

to th	Total	Grand Total	Total Heavy	Total Buses	Total Trolleys	Total for Average 15 Minutes	Streets
18	352	1,424	185	23	12	301	Huguenot St. at Division St.
6	87	385	42	5	3	....	
...	394	1,531	22	24	28	350	Huguenot St. at North Ave.
..	125	399	6	7	8	....	
...	264	1,594	22	38	30	341	Huguenot St. at Rose St.
....	68	458	8	8	5	....	
..	370	1,225	227	11	21	239	Huguenot St. at North Ave.
..	123	383	60	2	7	....	
..	294	1,852	30	27	24	389	Huguenot St. at North Ave. and Rose St.
..	82	487	9	10	7	....	
..	364	675	139	8	....	123	Huguenot St. at end of Cedar St.
..	90	173	44	1	....	....	
0	13	1,028	190	14	....	180	Huguenot at River St. and Echo Ave.
2	2	280	36	5	....	....	
5	79	1,011	11	5	22	216	Coligni Ave. at Fifth and North Aves.
4	23	285	1	1	6	....	
5	53	901	204	....	3	186	Coligni Ave. at Fifth and North Aves.
2	8	242	61	....	....	....	
..	....	464	....	....	7	91	North Ave. at Beechmont Drive
..	....	132	....	....	2	....	
1	61	....	....	....	....	105	North Ave. at Eastchester Road
..	....	....	....	....	....	....	
..	....	520	91	....	4	104	North Ave. at Paine Ave. and Valley Road
..	....	145	37	....	1	....	
..	....	508	89	....	....	89	North Ave. at Quaker Ridge Road
..	....	180	37	....	....	....	
..	....	681	102	1	5	123	North Ave. at Quaker Ridge Road
..	....	192	30	....	1	....	

Prepared by the
TECHNICAL ADVISORY CORPORATION
for the
PLANNING BOARD

TRAFFIC COUNTS FOR MAXIMUM HOUR AND QUARTER HOUR — 1928
NEW ROCHELLE, NEW YORK

Streets	Date	Counting Time	Time	From NORTH to East	From NORTH to South	From NORTH to West	From NORTH to Total	From EAST to South	From EAST to West	From EAST to North	From EAST to Total	From SOUTH to West	From SOUTH to North	From SOUTH to East	From SOUTH to Total	From WEST to North	From WEST to East	From WEST to South	From WEST to Total	Grand Total	Total Heavy	Total Buses	Total Trolleys	Total for Average 15 Minutes	Streets
Huguenot St. at Division St.	Tues. Aug. 21	11:15A—7:00P	Max. hour 5:15—6:15P	109	132	92	353	40	521	50	611	25	93	10	128	45	289	18	352	1,424	185	23	12	301	Huguenot St. at Division St.
			Max. 15 min. 5:45—6:00P	37	32	28	97	10	134	16	160	10	28	3	41	9	72	6	87	385	42	5	3	....	
Huguenot St. at North Ave.	Sat. Aug. 4	11:00A—7:00P	Max. hour 6:15—7:00P	....	....	247	247	....	564	55	619	88	178	5	271	148	246	....	394	1,531	22	24	28	350	Huguenot St. at North Ave.
			Max. 15 min. 6:15—6:30P	....	....	56	56	....	121	12	133	26	58	1	85	48	77	....	125	399	6	7	8	....	
Huguenot St. at Rose St.	Sun. Aug. 5	3:00 —7:00P	Max. hour 5:45—7:00P	....	....	392	392	....	654	89	743	49	139	7	195	96	168	....	264	1,594	22	38	30	341	Huguenot St. at Rose St.
			Max. 15 min. 6:45—7:00P	....	....	145	145	....	125	65	190	11	42	2	55	28	40	....	68	458	8	8	5	....	
Huguenot St. at North Ave.	Tues. Aug. 21	11:30A—6:45P	Max. hour 2:15—3:15P	....	38	172	210	....	376	95	471	43	119	12	174	133	237	....	370	1,225	227	11	21	239	Huguenot St. at North Ave.
			Max. 15 min. 2:45—3:00P	....	....	83	83	....	99	26	125	14	34	4	52	42	81	....	123	383	60	2	7	....	
Huguenot St. at North Ave. & Rose St.	Mon. Sept. 3 (Labor Day)	12:10M—7:45P	Max. hour 6:45—7:45P	....	....	285	285	....	1,025	47	1,072	50	138	13	201	115	179	....	294	1,852	30	27	24	389	Huguenot St. at North Ave. and Rose St.
			Max. 15 min. 7:30—7:45P	....	....	67	67	....	280	6	286	14	34	4	52	31	51	....	82	487	9	10	7	....	
Huguenot St. at end of Cedar St.	Tues. Aug. 21	11:15A—7:00P	Max. hour 4:30—5:30P	96	....	63	159	....	....	152	152	....	....	....	....	75	289	....	364	675	139	8	....	123	Huguenot St. at end of Cedar St.
			Max. 15 min. 4:30—4:45P	26	....	11	37	....	....	46	46	....	....	....	....	20	70	....	90	173	44	1	....	....	
Huguenot at River St. and Echo Ave.	Tues. Aug. 21	11:15A—7:00P	Max. hour 4:15—5:15P	6	7	3	16	130	815	8	953	24	5	17	46	3	....	10	13	1,028	190	14	....	180	Huguenot at River St. and Echo Ave.
			Max. 15 min. 5:00—5:15P	2	1	1	4	38	225	....	263	6	3	2	11	....	....	2	2	280	36	5	....	....	
Colgni Ave. at Fifth and North Aves	Sat. Aug. 4	11:00A—6:55P	Max. hour 5:45—6:45P	3	358	38	399	39	28	22	89	48	357	39	444	24	10	45	79	1,011	11	5	22	216	Colgni Ave. at Fifth and North Aves.
			Max. 15 min. 6:30—6:45P	1	103	12	116	6	12	5	23	16	94	13	123	8	1	14	23	285	1	1	6	....	
Colgni Ave. at Fifth and North Aves	Thur. Aug. 30	11:15A—6:50P	Max. hour 11:15—12:15M	27	340	37	404	28	16	32	76	30	323	15	368	20	8	25	53	901	204	....	3	186	Colgni Ave. at Fifth and North Aves.
			Max. 15 min. 11:45—12:00M	6	95	10	111	13	5	7	25	6	90	2	98	5	1	2	8	242	61	....	....	....	
North Ave. at Beechmont Drive	Thur. Aug 30	11:20A—6:45P	Max. hour 5:30—6:30P	8	....	....	8	62	....	76	138	86	204	28	318	....	....	....	....	464	....	....	7	91	North Ave. at Beechmont Drive
			Max. 15 min. 5:45—6:00P	....	....	....	....	13	....	23	36	34	56	6	96	....	....	....	....	132	....	....	2	....	
North Ave. at Eastchester Road	Thur. Aug 30	11:15A—6:45P	Max. hour 4:30—5:30P	....	355	64	419	....	....	....	....	....	....	....	....	....	....	61	61	....	....	....	....	105	North Ave. at Eastchester Road
			Max. 15 min. 4:30—4:45P	....	99	19	118	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
North Ave at Paine Ave and Valley Road	Thur Aug. 30	11:30A—6:38P	Max hour 4:30—5:30P	8	290	....	298	15	....	14	29	....	180	13	193	....	....	....	....	520	91	....	4	104	North Ave. at Paine Ave. and Valley Road
			Max. 15 min. 4:45—5:00P	3	93	....	96	6	....	5	11	....	38	....	38	....	....	....	....	145	37	....	1	....	
North Ave. at Quaker Ridge Road	Mon. Aug. 20	11:45A—7:00P	Max. hour 4:30—5:30P	11	177	....	188	36	....	139	175	....	126	19	145	....	....	....	....	508	89	....	....	89	North Ave. at Quaker Ridge Road
			Max. 15 min. 4:30—4:45P	....	69	....	69	15	....	61	76	....	35	....	35	....	....	....	....	180	37	....	....	....	
North Ave. at Quaker Ridge Road	Wed. Aug 29	11:25A—6:34P	Max. hour 4:30—5:30P	46	219	....	265	117	....	70	187	....	162	67	229	....	....	....	....	681	102	1	5	123	North Ave. at Quaker Ridge Road
			Max. 15 min. 4:45—5:00P	8	68	....	76	40	....	20	60	....	43	13	56	....	....	....	....	192	30	....	1	....	

to ıth	Total	Grand Total	Total Heavy	Total Buses	Total Trolleys	Total for Average 15 Minutes	Streets
)9	115	400	80	1	6	72	North Ave. at Wilmot Road
30	33	111	19	....	2	....	
4	62	235	102	....	....	48	Washington Ave. at 4th St.
1	19	69	26	....	....	....	
23	81	262	38	....	1	52	Main St. at Church and Mechanic Sts.
7	28	78	9	....	....	....	
17	37	595	109	2	....	111	Union Ave. at Webster Ave.
3	7	160	40	....	....	....	
36	251	1,076	158	1	6	191	Winyah Ave. at Webster Ave.
15	53	288	42	....	1	....	
22	51	700	119	1	8	108	Mayflower Ave. at Webster Ave.
2	7	216	47	....	2	....	
16	94	580	104	....	....	97	Eastchester Road at Webster Ave.
5	29	173	39	....	....	....	
43	449	911	100	4	3	184	Main St. at Franklin Ave. and Hudson St.
4	111	254	27	1	1	....	
36	396	793	89	1	8	186	Main St. at Franklin Ave. and Hudson St.
9	88	263	30	....	1	....	
22	885	1,644	10	5	5	285	Main St. at Franklin Ave. and Hudson St.
6	239	450	2	1	4	....	
52	1,420	1,899	46	10	....	289	Main St. at Echo Ave.
12	436	617	9	5	....	....	
....	1,054	2,727	6	47	....	618	Main St. at Huguenot St.
....	245	725	1	9	....	....	
....	....	1,402	....	....	....	318	Main St. at Weyman Ave.
....	....	374	....	....	....	....	
18	18	119	19	....	8	22	Main St. at Drake Ave.
7	7	38	7	....	2	....	
....	86	376	61	....	2	71	Main St. at Webster Ave.
....	22	107	17	....	2	....	

TRAFFIC COUNTS FOR MAXIMUM HOUR AND QUARTER HOUR — 1928 (Cont'd 2)

Streets	Date	Counting Time	Time	From NORTH to East	South	West	Total	From EAST to South	West	North	Total	From SOUTH to West	North	East	Total	From WEST to North	East	South	Total	Grand Total	Total Heavy	Total Buses	Total Trolleys	Total for Average 15 Minutes	Streets
North Ave. at Wilmot Road	Thurs. Aug. 30	11:22A—6:30P	Max. hour 4:15—5:15P	....	....	....	....	86	15	....	101	141	....	43	184	....	6	109	115	400	80	1	6	72	North Ave. at Wilmot Road
			Max. 15 min. 5:00—5:15P	....	....	....	....	30	2	....	32	33	....	13	46	....	3	30	33	111	19	....	2	....	
Washington Ave. at 4th St.	Fri. Aug. 31	11:15A—1:30P	Max. hour 12:00M—1:00P	12	40	14	66	7	42	17	66	6	30	5	41	14	44	4	62	235	102	....	....	48	Washington Ave. at 4th St.
			Max. 15 min. 12:45—1:00P	1	13	3	17	1	19	4	24	3	6	....	9	3	15	1	19	69	26	....	....	....	
Main St. at Church and Mechanic Sts.	Wed. Aug. 22	11:20A—7:00P	Max. hour 4:15—5:15P	....	....	....	....	40	....	63	103	21	13	44	78	58	....	23	81	262	38	....	1	52	Main St. at Church and Mechanic Sts.
			Max. 15 min. 5:00—5:15P	....	....	....	....	11	....	23	34	8	3	5	16	21	....	7	28	78	9	....	....	....	
Union Ave. at Webster Ave.	Fri. Aug. 31	11:20A—6:40P	Max. hour 4:45—5:45P	13	151	12	176	34	80	44	158	38	160	26	224	6	14	17	37	595	109	2	....	111	Union Ave. at Webster Ave.
			Max. 15 min. 4:45—5:00P	6	43	8	57	6	19	15	40	8	43	5	56	2	2	3	7	160	40	....	....	....	
Winyah Ave. at Webster Ave.	Fri. Aug. 31	11:30A—6:30P	Max. hour 4:30—5:30P	6	219	125	550	20	131	19	170	75	196	34	305	57	108	86	251	1,076	158	1	6	191	Winyah Ave. at Webster Ave.
			Max. 15 min. 4:45—5:00P	2	65	40	107	8	37	6	51	20	49	8	77	18	20	15	53	288	42	....	1	....	
Mayflower Ave. at Webster Ave.	Fri. Aug. 31	11:22A—6:36P	Max. hour 4:30—5:30P	3	286	23	312	70	38	9	117	36	152	32	220	10	19	22	51	700	119	1	8	108	Mayflower Ave. at Webster Ave.
			Max. 15 min. 4:45—5:00P	1	104	8	113	21	12	3	36	7	45	8	60	3	2	2	7	216	47	....	2	....	
Eastchester Road at Webster Ave.	Fri. Aug. 31	11:30A—6:35P	Max. hour 4:30—5:30P	7	202	23	232	63	48	4	115	29	88	22	139	13	35	46	94	580	104	....	....	97	Eastchester Road at Webster Ave.
			Max. 15 min. 4:45—5:00P	1	66	6	73	19	14	1	34	6	25	5	37	6	8	15	29	173	39	....	....	....	
Main St. at Franklin Ave. and Hudson St.	Wed. Aug. 22	11:30A—7:00P	Max. hour 4:45—5:45P	2	10	36	48	50	243	5	298	75	9	32	116	6	400	43	449	911	100	4	3	184	Main St. at Franklin Ave. and Hudson St.
			Max. 15 min. 4:45—5:00P	....	3	4	7	16	93	....	109	19	5	3	27	1	106	4	111	254	27	1	1	....	
Main St. at Franklin Ave. and Hudson St.	Wed. Aug. 29	11:15A—6:50P	Max. hour 5:00—6:00P	4	7	17	28	42	329	12	383	138	12	36	186	....	360	36	396	793	89	1	8	186	Main St. at Franklin Ave. and Hudson St.
			Max. 15 min. 5:00—5:15P	1	1	4	6	15	97	7	119	32	4	14	50	....	79	9	88	263	30	....	1	....	
Main St. at Franklin Ave. and Hudson St.	Mon. Sept. 3 (Labor Day)	12:20M—7:45P	Max. hour 5:00—6:00P	2	....	8	10	16	501	....	517	209	2	21	232	3	860	22	885	1,644	10	5	5	285	Main St. at Franklin Ave. and Hudson St.
			Max. 15 min. 5:45—6:00P	....	....	....	....	4	145	....	149	58	1	3	62	....	233	6	239	450	2	1	4	....	
Main St. at Echo Ave.	Sat. Aug. 4	11:00A—7:00P	Max. hour 2:00—3:00P	65	139	87	291	....	23	7	30	29	79	50	158	98	1,070	252	1,420	1,899	46	10	....	289	Main St. at Echo Ave.
			Max. 15 min. 2:45—3:00P	16	46	37	99	....	15	....	15	12	29	26	67	63	361	12	436	617	9	5	....	....	
Main St. at Huguenot St.	Sun. Aug. 5	3:00P—7:00P	Max. hour 3:30—4:30P	569	....	....	569	....	....	1,104	1,104	....	....	....	....	....	1,054	....	1,054	2,727	6	47	....	618	Main St. at Huguenot St.
			Max. 15 min. 4:15—4:30P	124	....	....	124	....	....	356	356	....	....	....	....	....	245	....	245	725	1	9	....	....	
Main St. at Weyman Ave.	Mon. Aug. 20	11:15A—7:00P	Max. hour 4:15—5:15P	....	....	....	....	16	774	....	790	....	....	....	....	....	....	....	....	1,402	....	....	....	318	Main St. at Weyman Ave.
			Max. 15 min. 4:30—4:45P	....	....	....	....	2	211	....	213	....	....	....	....	....	....	....	....	374	....	....	....	....	
Main St. at Drake Ave.	Mon. Aug. 20	11:15A—7:00P	Max. hour 5:00—6:00P	....	....	....	....	48	....	....	48	19	....	34	53	....	....	18	18	119	19	....	8	22	Main St. at Drake Ave.
			Max. 15 min. 5:15—5:30P	....	....	....	....	10	....	....	10	7	....	14	21	....	....	7	7	38	7	....	2	....	
Main St. at Webster Ave.	Mon. Aug. 20	11:15A—7:00P	Max. hour 4:30—5:30P	64	....	143	207	....	....	83	83	....	....	....	....	86	....	..	86	376	61	....	2	71	Main St. at Webster Ave.
			Max. 15 min. 4:30—4:45P	24	....	37	61	..	....	24	24	....	....	..	....	22	....	..	22	107	17	....	2	....	

WEST to t South	Total	Grand Total	Total Heavy	Total Buses	Total Trolleys	Total for Average 15 Minutes	Streets
20	518	1,236	140	6	1	265	Main St. at Center Ave.
6	130	345	42	1	....	....	
18	568	1,235	155	4	....	255	Main St. at Center Ave.
6	171	339	40	....	....	....	
....	....	280	47	5	9	60	Main St. at Lawton St.
....	....	75	3	3	4	....	
70	135	660	67	1	7	148	Division St. at Union Ave.
20	31	168	15	....	....	....	
Y.....	511	1,605	....	....	15	332	Roosevelt Square
	150	451	....	....	5	....	
Y.....	681	2,421	....	....	26	518	Roosevelt Square
	167	554	....	....	8	....	
Y.....	526	1,775	216	15	23	361	Roosevelt Square
	145	451	62	4	5	....	
Y.....	476	1,768	223	34	6	347	Huguenot St. at Main St.
	118	476	82	5	4	....	

TRAFFIC COUNTS FOR MAXIMUM HOUR AND QUARTER HOUR— 1928 (Cont'd 3)

Streets	Date	Counting Time	Time	From NORTH to East	South	West	Total	From EAST to South	West	North	Total	From SOUTH to West	North	East	Total	From WEST to North	East	South	Total	Grand Total	Total Heavy	Total Buses	Total Trolleys	Total for Average 15 Minutes	Streets
Main St. at Center Ave.	Wed. Aug. 22	11:15A—7:00P	Max. hour	85	45	67	197	37	245	82	364	38	52	67	157	39	459	20	518	1,236	140	6	1	265	Main St. at Center Ave.
			Max. 15 min.	25	14	22	61	14	64	22	100	13	22	19	54	3	121	6	130	345	42	1	....	....	
Main St. at Center Ave.	Wed. Aug. 29	11:15A—7:00P	Max. hour	52	50	40	142	32	302	79	413	19	53	40	112	44	506	18	568	1,235	155	4	....	255	Main St. at Center Ave.
			Max. 15 min.	12	10	8	30	14	74	27	115	4	9	10	23	20	145	6	171	339	40	....	....	....	
Main St. at Lawton St.	Wed. Aug. 22	11:15A—7:00P	Max. hour	124	....	156	280	....	....	....	....	....	....	....	....	....	....	....	....	280	47	5	9	60	Main St. at Lawton St.
			Max. 15 min.	37	....	38	75	....	....	....	....	....	....	....	....	....	....	....	....	75	3	3	4	....	
Division St. at Union Ave.	Fri. Aug. 31	11:15A—6:45P	Max hour	25	166	38	229	28	28	10	66	75	133	22	230	48	17	70	135	660	67	1	7	148	Division St. at Union Ave.
			Max. 15 min.	5	57	6	68	12	5	4	21	13	31	4	48	10	1	20	31	168	15	....	....	....	
Roosevelt Square	Sat. Aug. 4	11:00A—7:00P	Max. hour	Huguenot St. to N. Y....			559	From N. Y....			210	Main St. to N. Y.....			325	From N. Y....			511	1,605	....	....	15	332	Roosevelt Square
			Max. 15 min.				158				55				88				150	451	....	....	5	....	
Roosevelt Square	Sun. Aug. 5	3:00P—7:00P	Max. hour	Huguenot St. to N. Y...			1,018	From N. Y....			230	Main St. to N. Y.....			492	From N. Y....			681	2,421	....	....	26	518	Roosevelt Square
			Max. 15 min.				207				42				138				167	554	....	....	8	....	
Roosevelt Square	Mon. Aug. 20	11:15A—7:00P	Max. hour	Huguenot St. to N. Y....			644	From N. Y....			205	Main St. to N. Y.....			400	From N. Y....			526	1,775	216	15	23	361	Roosevelt Square
			Max. 15 min.				153				50				103				145	451	62	4	5	....	
Huguenot St. at Main St.	Tues. Aug. 21	11:15A—7:00P	Max. hour	Huguenot St. to N. Y...			1,027	From N. Y....			265					From N. Y....			476	1,768	223	34	6	347	Huguenot St. at Main St.
			Max. 15 min.				296				62								118	476	82	5	4	....	

Appendix V

RULES GOVERNING THE PLATTING OF LAND

Standards to be Observed in Platting Subdivisions

1. All sections of all streets, highways, alleys, parkways and building lines (including such as may fall within the boundaries of any plat) shall be located and dimensioned as indicated on the Official Map of the City hereinafter known as the Municipality. The apportioning of the street width between roadway, sidewalks and possible grass strips, shall be subjected to the approval of the Planning Board, which shall hereinafter be known as the Board.

2. In general, streets and highways shall be 60 feet or more in width from property line to property line and roadways 27 feet or more. The Board shall require a greater street and roadway width on such highways as they may determine to be main through traffic streets. All streets should be dedicated to the public use if the Municipality so desires and a clear title to that effect conveyed to the Municipality.

3. Service alleys shall be at least 18 feet wide. Where alleys are not provided along rear lot lines, easement strips at least eight feet wide (i.e. four feet wide on each lot) should be provided along the rear lot lines throughout the length of the block for public utilities, such as electric light, gas, water, sewer, telephone and other such services.

4. In general, no streets shall have a grade over 10 per cent. or in exceptional cases 14 per cent. as a maximum. No thoroughfare as so designated on the Official Map shall have a grade over 5 per cent., or in exceptional cases 7 per cent. as a maximum. No grade shall be less than ½ of one per cent. All changes in grade shall be connected by a vertical curve of not less than 15 feet of curve for each per cent., of change of grade, or in exceptional cases 10 feet.

5. In general, all streets and alleys should carry through with existing or platted streets and alleys on adjoining property. In any case provision should be made for extending streets and alleys to or even beyond the boundaries of the subdivision wherever it may be necessary for public service or convenience.

6. Cross streets should be located at intervals of not more than 1,200 feet except where they enter main through traffic streets as determined by the Board.

7. Dead-end streets should not exceed 500 feet in length. Every such street which serves as the sole frontage of any lot shall provide at its closed end a turnaround roadway of at least 30 feet radius.

8. No two streets shall intersect at an angle of less than 30 degrees or more than 150 degrees, and where they intersect at less than 60 nor more than 120 degrees unless the two street lines are connected with each other by a curve of at least 20 feet radius.

9. Building lines shall be shown on all streets not specifically designated for business or industrial use.

10. Curb corners should be rounded with a radius of not less than 20 feet.

11. Residence lots should be at least 50 feet wide and at least 100 feet deep.

12. Corner lots in residence districts should be enough wider than other lots to provide for an ample setback on the side street, as well as on the front street.

13. Where a tract is platted in plots of an acre or more proper allowance shall be made for an eventual replatting into practicable building lots and intervening streets.

14. Lot lines should follow municipal boundary lines whenever practicable rather than cross them.

15. Lot lines should be as nearly at right angles to the street line as is practicable. (On a curve, this means radial).

16. Suitable property should be allocated for schools, parks and playgrounds to be dedicated, or to be reserved for the common use of all property owners by covenant in the deed and subject to the control of the municipality under conditions approved by the Planning Board.

17. Street trees shall be located and planted wherever required by the Board or other authorized body and the trees shall be of types approved by them.

18. Sewer, drainage and water plans shall be approved by the Municipal Engineer hereinafter called the Engineer.

19. All construction on streets shall be subject to approval by the Engineer.

20. Permanent monuments of a design approved by the Engineer, and in conformity with the statute, shall be accurately set and established at the intersection of all outside boundary lines of the plat, at intersections of these boundary lines with all street lines, at least at diagonally opposite corners of each street intersection, at the beginning and end of all curves, at points on curves where the radius or direction changes, and at such other points as are necessary to establish definitely all lines of the plat (except those outlining individual lots).

21. Hardwood stakes at least two inches square and at least 18 inches long, shall be set at the corners of all lots; except that it is strongly recommended that permanent iron pins at least three-quarters of an inch in diameter and 30 inches long, or some other as suitable permanent marker be so used.

22. If the Engineer finds upon inspection that all of the improvements, when executed, are not in accordance with Municipal specifications and standards and not in accordance with the plat in the form in which it was approved by the Board, or if he finds that any of the surface or sub-surface street improvements necessary to render the lots suitable for building sites have not been installed, the responsibility of the Municipality to provide services and utilities shall cease.

RULES GOVERNING THE PREPARATION OF PLAT PLANS

(A) A carefully drawn plat plan shall be submitted, as provided by statute, to the Board for its approval before it is filed for record with the County Clerk. A copy shall be filed with the Board. (The submission of a preliminary layout for tentative approval is strongly recommended. This plat should locate and describe all existing conditions that might affect the layout.)

(B) The plat plan shall be drawn accurately to scale. The minimum scale shall be 100 feet to the inch.

(C) The title of the plat plan shall include its name, an accurate description of its location, its scale, the date, name and address of owner, its certification and the name and address of the subdividing engineer or surveyor.

(D) The following data shall be shown on the plat plan:

1. Direction of true north.

2. All plat boundary lines with lengths of courses to hundredths of a foot and bearings to half minutes. The error of closure shall not exceed 1 to 10,000. The names, exact location and widths along the property line of all existing or recorded streets intersecting the plat boundaries or paralleling them within 200 feet thereof; also the names and lot and block numbers of all bordering subdivisions.

3. Any city, town, or village limits within 200 feet of the plat, shall be accurately located on the plat, and their names shall be printed on them.

4. All streets as shown on the Official Map, wherever they lie within the plat or within 200 feet of it.

5. The exact layout, including:

(a) Street and alley lines; their names, bearings, angles of intersection and widths and all roadway, paved sidewalk and planting strip widths.

(b) The lengths of all arcs, radii, and tangents.

(c) The complete profiles along the center line of each street wherever the grade is over five per cent. together with a description and location of datum.

(d) All easements, or rights of way where provided for or owned by public services; the limits of the easement rights should be definitely stated on the plat.

(e) All lot lines with dimensions in feet and tenths.

(f) The accurate location and material of all monuments or bounds.

(g) All public property and property to be dedicated on the tract, accurately outlined and described with existing or proposed use designated.

(h) The location and use of all property reserved by covenant in the deed for the common use of all property owners.

(i) Proposed drainage and disposal of surface water.

6. Both public and private restrictions including:
   (a) Boundaries of each type of restrictions.
   (b) Setback building lines.

7. A copy of private restrictions for each differently restricted section of the plat.

(E) In any case of a replat, the same procedure, rules and regulations apply as for an original plat. However, the replat should also show clearly just what area has been vacated and should show enough of the surrounding plat or plats to indicate how the proposed replat fits in with them. Also, the title of the replat should indicate definitely of just what it is a replat.

POWER TO VARY RULES

In any particular case where compliance with the foregoing provisions would cause practical difficulty or unnecessary hardship, the Board shall have the right to vary the provisions, provided that it can be done in such a way as to grant relief and at the same time protect the general interest.

Appendix VI

AIRPLANE LANDING FIELDS*

Location and Layout

A program has been laid out by the Westchester County Federation of Planning Boards and by the Regional Plan of New York and Its Environs and various aviation authorities, providing for a central airport for Westchester County, somewhere near White Plains, with four subsidiary airports near the four corners of the county. Private airports and airfields have already been established in North Castle, Bedford, Harrison, Greenburgh and elsewhere.

The Tri-State Regional Planning Federation of Philadelphia is planning a system of airports and airfields throughout the 4,000 or 5,000 square miles of the Philadelphia region. They are proceeding on the principle that airports must be established within easy and quick automobiling distance of each of the larger centers and that airfields that can be used for emergency landing purposes should be established along all of the air routes or airways with scattered emergency landing fields in between. According to Federal Law, airplanes are not allowed to fly at a height of less than 1,500 feet above cities. As an airplane at that height would normally descend at a gradient of 1 to 7, it would reach the ground about two miles from the point at which it started to descend. However, in a case of an emergency landing with the possibility of loss of altitude before one had a chance to start to glide to an emergency landing field, and in view of the loss of altitude during the time that one is trying to locate an emergency landing field, due to poor visibility, fog and otherwise, it would seem fair to assume that for safety in urban and suburban territory where there are few, if any, open fields to land in, that emergency fields should be located not more than two miles apart along the line of airways in the intervening areas between the airways; they might be from 5 to 10 miles apart.

Applying this principle to Westchester County, we find that there would tend to be three radiating airways from New York; one following up the Hudson; one following up approximately the Harlem Valley, and the third following the Sound. There would also tend to be cross airways; one through the southern part of the county and one probably through the northern part. Further subsidiary lanes would tend to develop as time went on.

Other things being equal, airports would be located to best advantage where any two airways crossed. That would mean three airports in the southern part of the county; that is, one near Port Chester; one near White Plains, and one in Yonkers, or possibly Greenburgh, and two or three in the northern part of the county, of which one would be in the Bedford-North Castle area and the other in the Ossining-Peekskill area.

In locating individual airports attention has been given so far almost exclusively to the needs of aviation itself, and surprisingly little thought has been given to the effect of the airport on the community in which it locates.

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* By George B. Ford of the Technical Advisory Corporation.

First, from the standpoint of aviation, obviously the airport has to be on the outskirts if land is to be acquired at a reasonable figure. As a rule their distance from the built up centers varies from 3 to 10 miles.

To avoid the smoke pall of the city and particularly of its industry, the airport should be in principle to the windward of the city. As a general rule the newer residence sections tend to develop to windward for the same reason, all of which helps the airport by the possibilities it presents of avoiding high buildings and the treacherous air currents that one is apt to find near tall buildings or an industrial section.

If there happens to be an undeveloped platcau to windward, the possibility of finding a good site for an airport would be further improved for there would probably be much less fog and swampy soil in such a location.

In any case the airport should be so located as to make it possible for an airplane coming in or going out over the established airways to avoid passing over the built up sections of the city with the gustiness and danger which it implies. Then, too, realizing that emergency landing fields as now required near cities at intervals of only 10 miles is still far from safe, it is not inconceivable that the airway of the future will have an emergency field every few miles, or, better still, that the ground under the airway will be maintained free of structures, especially in the neighborhood of cities, so that an emergency landing can be made anywhere. Perhaps it would be possible for these airways to be used as golf courses or public reservations.

The airfield should be well drained, but it should not have a grade of over 2 per cent. for effective and safe use except for emergency purposes.

Realizing, too, that airplanes risc as a rule at a grade of 1 to 7, standard runways rcquired by the Department of Commerce must be so calculated that they will not be effectively shortened by chimneys, radios, poles, wires, buildings or trees opposite their ends. From the standpoint of the airport the ideal loctaion is in open farming country or possibly in an area surrounded by parks and golf courses and even cemeteries, or, at least, by an open residence development. A neighboring factory district is dctrimcntal on account of smoke, dust, fumes and the tall buildings or chimneys that it is likely to foster.

From the standpoint of the community the problem is quite different and in a number of communities of late there has been a strenuous objection voiced to the unpleasant or harmful features of the airport.

Thc dust that is kicked up by the propeller when running at full speed is often blown for long distances across thc surrounding territory. This can be obviated by the rcquirement on the part of thc municipality that no airplane shall take off or land or run its propeller except on a concrete apron or runway or else on a surface that has been thoroughly impregnatcd with dust-preventing fluids. The noise of airplanc engines and propellers has also become a distinct nuisance in many localities. It is truc that muffler devices for airplane engines are now approaching perfection, but so far thcre has been no silencer developed for the propellers, although experiments are being conducted to this cnd at thc present time. At the present moment all that the municipality can do to protect the surroundnig residences is to require

that all airplanes, when their propellers are running at over say 500 revolutions per minute, shall be kept at least 350 or preferably 500 feet from any bordering lot line. They should also provide that as soon as practical silencers for engines and propellers are on the market they shall be required on all planes entering and leaving the airport.

The element of danger from planes falling over neighboring houses is today quite insignificant. However, the municipality would do well to insist that the runways should be so laid out that no machine on landing or taking off would have to pass at a less altitude than say 500 feet over any neighboring house or land that would normally be used for housing.

Airport Aspect

If the airport in its layout satisfies all of its practical requirements, the problem is even then only half met, for unless the design of the airport itself, as seen from the air, satisfies the eye a great opportunity has been missed. Hon. Dwight Davis, when Secretary of War, was the first to recognize this, and in the plans, which we have recently made for Mitchel, Selfridge, Albrook, March, Rockwell and Randolph Fields, we have attempted to make the general layout a good composition in form and color and a delightful place to live in as well as technically efficient.

In Europe they have gone even further and attempted to make the airport gay—a place of resort with the introduction of clubs, cafes, restaurants and hotels, and at Templehof they are even encouraging the public to come there for dances and entertainments. They believe that it encourages airmindedness.

Again we can profit by the horrible example of the railroad station and avoid the sordid surroundings of the latter by placing the airport in a residence district, or, better still, adjoining a park, golf course, fair ground or other public reservation.

Roof Advertising

Also with a view to assuring attractive surroundings every municipality should immediately prohibit all roof advertising. Roadside advertising grew with amazing rapidity and without check until it was too late. Now we are going to an immense amount of trouble to restore our road sides to their natural beauty. Today we have the opportunity to nip in the bud the inevitable spread of roof advertising. It can be forestalled now without loss to anyone. Tomorrow it will be too late, and our opportunity will be gone.

Airport Approaches

The relation between the airport and the adjacent cities or towns is the outstanding city planning problem presented by aviation. As long as the airplane continues a novelty, greater and greater crowds are going to flock to the airport. In fact, it is maintained that there must be five acres of parking space adjacent to the airport for every hundred planes that use it. One has only to witness the hundreds of cars parked near Curtis or Roosevelt Field any fair Sunday to realize the important planning problem which the airport presents. As the novelty wears off, the sightseers will be replaced by the regular users of the airport, so that at best ample approaches by road, by rail, and often by water must be provided. We must not repeat again the costly mistakes we have so often made by inadequate approaches to our railroad sta-

tions. Speed by road transit or rail from the airport to the city center is the great essential even though it may mean construction of an express superhighway between the two points.

Unquestionably, too, passenger and freight rail approaches are going to be of the utmost importance within a few years; so much so that it has been suggested that an ideal place for a future airport would be on a great raised platform over a Manhattan Transfer Station, or even over the Pennsylvania cut, just west of the Manhattan Post Office.

Air "Mosaic"

It is in the approach by air that the city stands out in all its fascination. It is a great map come to life, an intricate pattern, a vivid mosaic of form and color, light and shade.

It is unfortunately true that this mosaic—intriguing as it may be—usually appears to be just a formless mass, a meaningless jumble, without plan or reason. By contrast, a Paris or a Washington stands out in all its glory and beauty as a triumph of ordered pattern. We have never been able to see the plans of our cities before, and so we have never had a chance to see how formless we have let them become. In our air travel of the near future we are going to be all too conscious of our dereliction. It is this thought that is inspiring the modern city to have their architects and city planners study the appearance and the pattern of the city from the air.

Appendix VII

A BETTER LOOKING CITY*

Whether you belong to the 50,000,000 country dwellers or the 30,000,000 suburbanites or the 40,000,000 city dwellers of America, whether you dwell in a seaside cottage or in a city flat, your home does not stop at your four walls. You cannot look out of the window or step out of the the door without realizing that your house, however charming it may be, cannot alone satisfy your family needs. What a vast difference a bright attractive outlook makes! What jewel so rare that it does not gain by a proper setting. On the other hand what is more depressing than the house which sits badly on its narrow lot, doing lockstep with its neighbors? The best designed building goes down before such a test and sinks discouraged into the welter.

Yes, by all means let your home display your personality, but that does not mean that you have the right to violate the charm of a group of refined Colonial homes by thrusting into their midst your battlemented castle. Nor can we so offend good taste as to insinuate a Spanish Pueblo villa into a street of Cape Cod cottages. Yet how often, unthinkingly it is true, just such social errors are committed. Social etiquette does not stop with human contacts. Subconsciously at least we are probably aware of the utter dullness of so many of our residential streets. We feel that somehow we must break that stultifying monotony, whence our outstanding house, anything for contrast. Yes, contrast by all means, in its place, but successful contrast is not an easy thing to effect. It can be had, but only with art and taste.

Variety and Harmony

Why is it, too, that we insist on lining our homes up like so many wooden soldiers in endless ranks. True, we must conform, we must play the game, but that does not mean that there is not something better than the tiresome straight-front block. Look at the picturesque grouping of homes at a Forest Hill Gardens on Long Island, or a Country Club district in Kansas City or a Mariemont near Cincinnati, and see the infinite variety that it can lend to the street picture; variety with harmony.

There is something curiously inconsistent in the point of view of the suburban home builder when he will spend many thousands of dollars to build a home and then wedge it in between the adjoining houses; for his family life is thus exposed to the neighbors, not to mention the greater risk of fire and the decreased light and air that such huddling implies. Unquestionably our average lot is much too narrow for privacy, for safety, or for looks. The impossible limit is reached in the type of house that is going up so numerously in the outlying sections of New York—houses so close together that one can reach across the narrow, dark slit between them into the window of the neighboring house. This is the first great mistake that the suburban housemaker commits.

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* By George B. Ford of the Technical Advisory Corporation, President of Federated Societies on Planning and Parks.

The setting of the house is also of the utmost importance. Even a few shrubs and flowers and a well kept lawn can make the home look as though it really belonged on its site and not as though it had just been dropped there. However, landscape architecture goes far beyond this and has become a whole art in itself. Even the ordinary buiding can be made attractive the year round if properly ensconsed among ingeniously grouped shrubs, plants and trees. The Garden Club of America, with its fascinating competitions for models of home-setting on typical lots is pointing out a great variety of ways in which the home can be strikingly enhanced by its setting. At the same time we are learning how to harmonize the planting of neighboring lots so as to avoid discord and a spotty street perspective.

Importance of Trees

It has been proved by actual experiment that, on a hot summer's day, it is often 10 degrees cooler in Central Park than it is in the streets a block away. In fact, there seems to be no one thing that makes as much difference in comfort as trees around the house and along the street and surely, too, there can be no doubt in any one's mind that there is all the difference in the world in the attractiveness of a tree-arched street, as compared with the sheer monotony of unrelieved buildings. Arbor Day and tree planting by school children are the best investments we have ever made.

Once our trees have grown large and handsome, thanks to many years of care, along may come the street lighting or telephone linemen and ruthlessly attempt to slash great gashes in them to get their wires through. We would be in utter despair if we did not know that there is a practical way out, for the up-to-date way is to put the poles and wires along the rear lot lines in the center of the block or else to bury the wires in conduits under the street. Nor is it alone the slashing of the trees that hurts; there is nothing that so violates the harmony of the street perspective as the rude intrusion of uncouth poles into the picture. The contrast is all the more striking when we go into one of the new high class subdivisions and see what care and thought is given to every detail of street fitting—well designed lighting fixtures, street name signs and even waste cans, attractive grass borders with just the right kind of sidewalks and curbing together, making a street that any one would be proud to live upon.

Home Extends Into Yard

The modern subdivider realizes, as he never realized before, that the home must not stop at the four walls. He realizes that it is his duty to extend the home out into the yard and beyond, to amplify living. The result is a marked tendency all over the country toward wider and deeper lots and broader streets, and with that, too, more and more subdividers are providing public open spaces for parks, playgrounds and schools, or community houses. More and more they are planting trees and grass borders and in addition to all this they are insisting on restrictions in the deed which will keep up the character of the property and prevent unthinking abuse by a neighbor.

Zoning Solves Problem

Zoning gives real protection against a harmful use of neighboring property to every home owner, rich and poor alike. Zoning is nothing more or less than a place for everything and everything in its place, extending good housekeeping to the whole community.

Zoning means that business is concentrated at the junctions of highways conveniently nearby, but at the same time is segregated where it will do the least harm to the surrounding residential district. Such a grouping of business encourages the harmonious architectural treatment of the various buildings of the local center, so that they may be a treat to the eye and a real credit to the community. With proper design it even permits the effective inclusion of a church, a community house, a club or a motion picture house. We have only to see the center of a village like Bronxville, or Forest Hills Gardens, or a store center like that at Upper Montclair, or the new one in Poughkeepsie to realize what an attractive asset a local center can be to any community.

In general it only requires a little thought to appreciate that these homes with their settings, be they in the city, suburbs or country, these residential streets, these subdivisions, these local centers and these playgrounds, parks and public buildings sum up into the town or the city. As they develop so develops the community as a whole. Whatever is done for the whole town in the way of public improvements and planning for the future reflects back strikingly on each individual home. Town planning is merely a projection of home planning. The good of the town and the good of the home are one. Your home is as big as your community.

How to Assure the Better Looking Town

The City Planning Board can make plans for the improvement only of public property. Its control or influence over private property and private development is limited to the negative protection that a zoning ordinance, a building code and platting regulations can give. Unfortunately, it has no control over the appearance of private grounds or buildings.

The Art Commission has no creative power. It is at best merely a jury that approves or disapproves the design and appearance of public buildings and structures. It again has no control over private buildings or structures.

It is true that in Europe municipal control over the design and appearance of private structures is current and effective. The strikingly ordered and harmonious appearance of the streets of European cities is the result of this control. So far the American courts have not admitted that we can control the appearance of buildings and grounds except by paying for it. It is true that an act was passed in 1927 in California which does give legal authority for architectural control, although it has not yet been tested out in the courts. It says in part that the City Plan shall be made with the general purpose of harmonious development of the municipality or county and its environs which will in accordance with present and future needs best promote the amenities of life, good civic design and arrangement and the improvement and control of architecture and general embellishment of the area under the jurisdiction of the Planning Board.

In Santa Barbara, after the earthquake and fire, an architectural jury was established by ordinance to which the designs for the facades of all new buildings had to be submitted before the owner could receive a building permit. This jury passed upon the designs for over 2,000 buildings before the ordinance was declared unconstitutional. However, public sentiment has carried on this control in large measure through moral persuasion.

In the city of St. Charles, Ill., the new Building Code provides:

> "Section 96: Every building hereafter erected or altered in the city of St. Charles shall be so designed and arranged as to be suitable in its neighborhood, and the architectural committee provided in Section 4 shall be the judge of this matter in passing upon plans submitted with applications for permit. It is not contemplated that material additional cost may be required to conform to this regulation, but that the design, arrangement, and placement of the building shall be the best possible without adding materially to the cost thereof".

This has not yet been tested out in the courts.

It is well known that many of the leading subdivisions in the country have their own architectural juries, of which the most notable example is Palos Verdes in California. It is the duty of these juries to see that every building and structure harmonizes with its surroundings and is in good taste. All of this is a long step forward. However, while we are waiting for the constitutional authority to appoint official architectural juries for our cities and towns, there is much that can be accomplished by private initiative and endeavor. Perhaps the most famous example of this is the Fifth Avenue Association in New York City, which by force of public opinion has had a marked influence on preserving the dignity and harmony of the avenue. Such street associations already exist in several Californian cities, along Carnegie Avenue in Cleveland, in Durham, N. C. and elsewhere. The initiative is apt to come from the Chamber of Commerce, or from a real estate board, or from one of the service clubs. In any case, it has a very real function to perform in persuading those who are building that it is to their advantage to build and develop their grounds in harmony with the general street picture.

This implies the creation of an architectural board of advice or control. The Washington Chapter of the American Institute of Architects has created an Advisory Council there on which various Washington architects serve in rotation. Public opinion has induced a surprisingly large number of owners building in Washington to submit their designs to this voluntary jury for their advice. The effect is already marked.

In most cities such a jury could probably be appointed to best advantage by the Art Commission and the Planning Board working in collaboration with the local chapter of the Institute of Architects and perhaps a Civic Development Committee of the Chamber of Commerce.

If such a jury were to be created for several principal streets in the city, its first duty would be to prepare a rough scheme for the harmonious development of each street—something to work to—such as has been done, for example, for the extension of the Albany Post Road through the heart of Poughkeepsie, New York. It is highly desirable that the Chamber of Commerce or the Street Association should finance the relatively small cost of making these general schemes for the development of the streets, and it is to be hoped that a way might be found whereby the architects, who prepared the general scheme, might be retained by individual builders along the streets in some consulting capacity.

In any case the creation of architectural juries and the influencing of public opinion to the point where it becomes the thing for builders to submit their designs to the jury is one of the most worth while ideals that any city can set up. The tawdriness of the average city street is appalling. By contrast the appeal of a harmoniously designed street is most striking. The well designed street need cost no more; in fact may cost less than the helter-skelter street. All it needs to shift from chaos to order, from ugliness to beauty is taste and good will. There are plenty of both in every community. All that it needs to start the movement is devoted cooperative action on the part of a few public servants. There is nothing that can go farther toward assuring the good-looking town than the creation of an architectural jury backed by public opinion.

Appendix VIII

TRIAL LONG TERM CAPITAL BUDGET*

No city plan is worth the paper it is printed on if it is impossible to carry out. The test of any plan is the practicableness of its execution. It it impossible to know whether a plan can be carried out without marked increase in taxes unless some study is made of the cost of carrying out the plan.

Obviously, it is impossible for the Planning Board to calculate the cost of executing its plans during the next 10, 15 or 25 years with any great accuracy. At best all they can do is to prepare a Trial Budget which will be roughly approximate at best. However, it is possible for the Planning Board to get some idea of how much at least the earlier part of their program should cost and then by comparison with the estimated city revenue and borrowing capacity determine how much and what items of their program can be carried out each year without materially increasing taxes.

It remains for an official Joint Capital Budget Commission to prepare a detailed and reasonably accurate joint capital budget for public improvements for a period of from 5 to 10 years ahead.

Trial budgeted programs have been prepared by the Planning Boards of Rye, Mamaroneck, Irvington, Bronxville, Briarcliff Manor, Mount Kisco and Trenton. New Rochelle has made a similar budget for the next seven years. Official budgets have been prepared by joint Capital Budget Commissions in Cincinnati, Dayton, St. Louis, Dallas, Detroit, White Plains, Roanoke and Schenectady.

The financial studies in the two cases are identical. The only difference is one of detail, accuracy and official standing. The trial budget prepares the way for the joint commission's official budget. The trial budget assures the practicableness of the Comprehensive City Plan. The official budget provides a specific program for its execution.

Briefly the procedure in either case is as follows:

1. All outstanding bond issues of the municipality, whether they be for public improvements, sewers, water, schools or short time special revenue bonds, are analyzed and the amount of disbursements on each category for each year, both principal and interest, are calculated for a period of 10 to 25 years ahead. This gives the total carrying charges that the City must allow for in its current budget for each year throughout the period.

2. The total population of the city is then estimated as it should probably be during each year for the period envisaged by the long term capital budget. This is checked with estimates available from all possible sources.

3. The probable city expenses, exclusive of debt service, are calculated for each year during the long term budget period. Statistics throughout the country show that, other things being equal, city expenses, exclusive of debt service, tend to increase in direct ratio to the increase of population.

* By George B. Ford of the Technical Advisory Corporation.

4. The total city expenditure, including the debt service for each year throughout the budget period, is then calculated.

5. Total assessed valuations of the community, according to statistics, tend to increase somewhat more rapidly than the increase in population up to 10 or 15 per cent. faster, but in order to be on the safe side, it is customary to assume in working out a long term budget program that assessed valuations will increase only in direct ratio to the population increase.

6. Assuming that the tax rate remains constant, the city income each year during the budget period can be calculated by multiplying the tax rate by the calculated assessed valuations for each year.

7. City income from sources other than taxes, according to experience, also tends to increase directly with the increase in population. It is thus possible to calculate this other income for each year throughout the budget period.

8. The total city income of each year during the budget period will be the same as the net income from taxes plus the income from other sources.

9. Knowing now for each year during the budget period the total city income and the total city expenditure, including debt service, the difference for each year will be the balance available for the financing of new public improvements either on the pay-as-you-go principle or through new serial bond issues.

10. The legal debt limit of the City is then calculated by multiplying the maximum legal borrowing percentage of total assessed valuations by the calculated total assessed valuations for each year throughout the budget period. Self-supporting bond issues are not counted, but City notes issued against local benefit assessments often do have to be considered.

11. The practicable debt limit of the City, as determined by its ability to float bonds on the New York market at a reasonable interest rate, is also calculated for each year during the budget period.

12. The total outstanding net bonded indebtedness of the City is calculated for each year during the budget period.

13 The legal borrowing margin of the City for each year is determined by subtracting the outstanding net indebtedness for that year from the debt limit for that year.

14. The practicable borrowing margin is similarly calculated for each year.

15. The funds available for new public improvements during any year throughout the budget period are calculated by adding the balance from current revenue for that year to the legal borrowing margin or the practicable margin as the case may be.

The next step is to calculate how much each proposed public improvement will probably cost. The cost should be divided into the following categories:

1. Cost of property and damages
2. Cost of roadways, curbs and drainage
3. Cost of fill, grading and landscaping
4. Cost of buildings and structures, including bridges

Added together these items will give the total cost of the improvement. In arriving at these costs, it is customary to use current unit costs for each of the current types of street pavement, sidewalk pavement, curbing, guttering, fill, etc. (Incidentally, it is astonishing how greatly these unit costs vary from one city to another.)

The next problem is to determine what proportion of the total cost should be borne:

1. By abutting or neighboring property owners in the form of local benefit assessments;

2. By the state or county, especially in road work;

3. By railroads or other public utilities, especially with regard to grade crossing elimination.

The net cost to the municipality is obviously the difference between the total cost and such parts of it as can be allocated to others.

It is next desirable to take various recommended projects of the Planning Board and divide them up into groups, such and such items to be undertaken during the next one or two year period; such and such to be undertaken during the next five-year period, etc.

It is now possible, knowing the net cost to the municipality of each proposed improvement, to determine how much the recommended program for the immediate period and for each succeeding five-year period would cost. Due allowance must always be made for all projects and improvements to which the City Council, School Board, or other authority is already committed. It is most important that there should be no surprises on this score.

It is not possible to decide for each period whether the financing of all of the proposed public improvements for that period can be taken care of out of the balance from current revenue on a pay-as-you-go basis, or whether it will have to be financed in whole or in part by bond issues.

In most cases, it is found possible to pay for part of the improvement program out of the balance from current revenue on the pay-as-you-go basis and the balance during the first period or two out of bond issues, always remaining within the practicable debt limit. While this means that the debt service charges throughout each succeeding year have to be taken care of out of the current revenue balance, nevertheless, it is usually found possible after the first period or two to take care of all of the rest of the public improvement program out of the current revenue balance on a pay-as-you-go basis. This is the outstanding advantage and economy of the City Plan and trial budget, for experience shows that a carefully prepared plan and trial budget avoids waste and takes full care of the development of the community in an orderly and thoroughly businesslike manner; in other words it gives more value for the tax dollar.

CITY OF NEW ROCHELLE, WESTCHESTER COUNTY, NEW YORK

FINANCIAL ASSETS AND LIABILITIES

Year	Disbursements for Outstanding Sewer Bonds Prin. and Int.	Disbursements for Outstanding Bonds for Municipal Improvements and Acquisition of Real Property Prin. & Int.	Disbursements for Outstanding School Bonds Prin. & Int.	Disbursements for Outstanding Miscellaneous Bonds Prin. and Int.	Total Disbursements for Outstanding Bonded Indebtedness Prin. and Int.	Population	Year	Estimated City Expenses Exclusive of Debt Service
1929	$111,498.94	$329,212.75	$343,857.11	$68,022.75	$852,591.55	50,500	1929	$3,922,590.00
1930	114,268.94	368,652.50	347,354.61	58,137.75	888,413.80	52,300	1930	4,062,141.00
1931	118,216.00	379,575.00	349,452.11	53,402.75	900,645.86	54,100	1931	4,201,947.00
1932	115,402.50	331,680.00	337,787.11	40,493.00	825,362.61	55,900	1932	4,341,753.00
1933	112,980.00	285,422.50	325,922.11	31,343.00	755,667.61	57,700	1933	4,481,559.00
1934	110,557.50	258,397.50	308,428.11	27,623.00	705,006.11	59,400	1934	4,613,598.00
1935	108,135.00	248,457.50	300,532.11	24,018.00	681,142.61	61,200	1935	4,753,404.00
1936	102,840.00	224,240.00	291,247.11	23,413.00	641,740.11	63,000		
1937	100,545.00	205,530.00	280,187.11	20,898.00	607,160.11	64,800		
1938	98,250.00	111,467.50	260,977.11	20,383.00	491,077.61	66,600		
1939	95,955.00	85,425.00	255,517.11	64,700.00	501,597.11	68,400		
1940	93,660.00	83,382.50	248,796.00	17,485.00	443,323.50	70,200		
1941	91,365.00	81,340.00	239,897.50	15,060.00	427,662.50	72,000		
1942	89,070.00	79,297.50	230,855.00	10,815.00	410,037.50	73,800		
1943	94,865.00	77,255.00	225,812.50	10,570.00	398,502.50	75,500		
1944	82,660.00	75,212.50	220,770.00	10,325.00	388,967.50	77,300		
1945	80,455.00	73,170.00	215,727.50	8,150.00	377,502.50	79,100		
1946	78,250.00	71,127.50	210,685.00	7,975.00	368,037.50	80,900		
1947	76,095.00	69,085.00	205,642.50	7,800.00	358,622.50	82,700		
1948	73,940.00	67,042.50	200,600.00	7,625.00	349,207.50	84,500		
1949	71,785.00	65,000.00	195,557.50	7,450.00	339,792.50	86,300		
1950	64,820.00	62,957.50	179,515.00	7,275.00	314,567.50	88,100		

NOTE: The tax rate used is .02245 per $1.00, or 2.245 per $100.00, exclusive of State and County taxes, from 1929 budget.

The City Expenses exclusive of debt service were projected from 1928.

The total Assessed valuations were projected from 1929 budget.

The City Income from sources other than taxes is projected from 1928.

FINANCIAL ASSETS AND LIABILITIES (Cont'd)

Year	Total Assessed Valuations	Net City Income from Taxes	Estimated City Income from Other Sources	Total City Income	Total City Expenditure Including Debt Service	City Balance from Current Revenue	8% Assessed Valuation Debt Limit	10% Assessed Valuation Debt Limit	Outstanding City Indebtedness
1929	$181,202,900	$4,068,000	$969,250	$5,037,250	$4,775,181	(Cumulative for 2 yrs.)	$14,496,200	$18,120,300	$10,500,000
1930	190,263,045	4,271,400	1,003,637	5,275,037	4,950,555	$586,551	15,221,000	19,026,300	.....
1931	199,776,197	4,484,900	1,038,179	5,523,079	5,102,592	.....	15,982,100	19,977,600	.....
1932	209,765,006	4,709,200	1,072,721	5,781,921	5,167,115	.....	16,781,200	20,976,500	.....
1933	220,253,256	4,944,600	1,107,263	6,051,863	5,237,226	.....	17,620,200	22,025,300	.....
1934	231,265,919	5,191,900	1,139,886	6,331,786	5,318,604	(Cumulative for 5 yrs.)	17,501,200	23,126,600	.....
1935	242,829,215	5,451,500	1,174,428	6,625,928	5,434,546	$4,054,494	19,426,300	24,282,900	6,121,900

Year	Estimated Borrowing Margin @ 8%	Estimated Funds Available 8% Borrowing Margin Plus Current Revenue Balance	Estimated Borrowing Margin @ 10%	Estimated Funds Available if Borrowing Margin is Increased to 10% Plus Current Revenue Balance
1929	$4,000,000	$4,586,551	$7,600,000	$8,186,551
1935	13,304,400	17,358,894	18,161,000	22,215,494

Impro Da	Total Cost	Local Benefit Assessment	State or County Aid	Railroad Pays Part Cost of Bridge	Net Cost to Municipality	Name and Description
1929-	$100,100	$40,000	.....	.....	$60,100	Biltmore Avenue.
	1,975,000		.....	.....	1,975,000	City Hall and Site.
	31,200	12,500	.....	.....	18,700	Division St. Widening.
	108,000	60,000	.....	.....	48,000	Eastchester Road Widening.
	15,000	6,000	.....	.....	9,000	Mayflower Ave. Extension.
	1,155,000	231,000	180,000	.....	744,000	Pine Brook Boulevard.
						Relief Thoroughfares—
	.....	.....	.....	.....	.....	(a) City Hall Plaza—North.
	2,477,100	400,000	.....	.....	2,077,100	(b) Division St. Widening.
	.....	.....	.....	.....	.....	(c) City Hall Plaza—East.
	225,000	.....	75,000	.....	150,000	Repaving North Avenue.
	708,000	409,800	25,000	.....	273,200	Rose St. Extension.
	863,000	511,800	10,000	.....	341,200	Rose St. Widening.
	270,500	195,100	.....	.....	75,400	Webster Ave.
	847,000	328,000	30,000	.....	489,000	West Main St. Widening.
	426,400	126,400	10,000	100,000	190,000	West Main St. Widening.
	180,000	60,000	.....	.....	120,000	New Playfield.
	550,000	.....	.....	.....	550,000	Glenmore Drive School.
	540,000	.....	.....	.....	540,000	Hardscrable School.
	80,000	.....	.....	.....	80,000	Senior High School Addition.
	920,000	.....	.....	.....	920,000	Weyman Avenue School.
	$11,471,300	$2,380,600	$330,000	$100,000	$8,660,700	
1931-	$2,000	.....	.....	.....	$2,000	Ashland St.—Fifth Ave. Corner.
	28,000	11,200	.....	.....	16,800	Ashland St. Extension.
	125,000	50,000	.....	.....	75,000	Avenue E Extension
	108,000	43,200	.....	.....	64,800	Beaufort Pl. Extension.
	207,000	88,000	.....	60,000	59,000	Cedar St. Extension.
	2,000	.....	.....	.....	2,000	Cedar St. Corner.
	120,000	48,000	.....	.....	72,000	Clinton Place Widening.
	200,000	.....	100,000	50,000	50,000	Division St. Bridge.
	194,000	117,000	.....	.....	77,000	Fifth Ave. Widening.
	352,000	70,400	.....	.....	281,600	Guion Place Extension.
	80,000	32,000	.....	.....	48,000	Guion Place Widening.
	18,000	.....	.....	.....	18,000	Hardscrable Road Widening.
	260,500	130,000	.....	.....	130,500	Hudson St. Widening.
	60,000	.....	.....	.....	60,000	Huguenot St. Straightening.
	180,000	72,000	.....	.....	108,000	LeRoy Place Extension.
	210,000	84,000	.....	.....	126,000	LeRoy Place Widening.
	100,000	24,000	.....	.....	76,000	Mill Dam Raising 4 Feet.
	600	400	.....	.....	200	Mill Road Corner.

PROGRAM AND TRIAL CAPITAL BUDGET, 1929-1935
STREET AND PUBLIC PROPERTY DEVELOPMENT

Improvement Date of	Name and Description	Location	Lineal Feet	Acres in Tract	Street Width Present	Street Width Proposed	Roadway Width Present	Roadway Width Proposed	Type of Pavement	Cost of Property and Damages	Roadway, Curbs and Drainage	Fill, Grading and Landscaping	Buildings and Structures	Total Cost	Local Benefit Assessment	State or County Aid	Railroad Pays Part Cost of Bridge	Net Cost to Municipality	Name and Description
1929–30	Biltmore Avenue	East City Line to Petersville Road	2,600		....	66	....	40	Concrete	$35,600	$64,500	.....	.....	$100,100	$40,000	.....	.....	$60,100	Biltmore Avenue.
	City Hall and Site		....		...	...	...	...	.....	650,000	.....	$75,000	$1,250,000	1,975,000		.....	.....	1,975,000	City Hall and Site.
	Division St. Widening	N. Y., N. H. & H. R. R. to Huguenot St.	300		50	60	24	36	Concrete	25,000	6,200	.....	.....	31,200	12,500	.....	.....	18,700	Division St. Widening.
	Eastchester Road Widening	Pelhamville Road to Webster Ave.	1,900		50	55	16	36	Concrete	20,000	88,000	.....	.....	108,000	60,000	.....	.....	48,000	Eastchester Road Widening.
	Mayflower Ave. Extension	Mayflower School to North Ave.	900		....	60	....	40	Concrete	.....	15,000	.....	.....	15,000	6,000	.....	.....	9,000	Mayflower Ave. Extension.
	Pine Brook Boulevard	Beechmont Lake to Quaker Ridge Road	9,000		....	....	....	....	.....	225,000	900,000	.....	.....	1,155,000	231,000	180,000	.....	744,000	Pine Brook Boulevard.
	Relief Thoroughfares—																		Relief Thoroughfares—
	(a) City Hall Plaza—north	Lockwood Ave. to Burling Lane	450		...	150	....	60	Concrete	.....	... ...	.....	.....	.....	.....	.....	.....	.....	(a) City Hall Plaza—North.
	(b) Division St. Widening	Burling Lane to Union Ave.	900		....	90	....	40	Concrete	2,350,000	127,100	.....	.....	2,477,100	400,000	.....	.....	2,077,100	(b) Division St. Widening.
	(c) City Hall Plaza—East	Burling Lane to North Ave.	950		....	90	....	40	Concrete	.....	.....	.....	.....	.....	.....	.....	.....	.....	(c) City Hall Plaza—East.
	Repaving North Avenue	Eastchester Road to Huguenot St.	6,200		60–66	...	40–50	50	Concrete	.....	225,000	.....	.....	225,000	.....	75,000	.....	150,000	Repaving North Avenue.
	Rose St. Extension	Main St. to Clinton Place	380		....	60	....	36	Concrete	646,000	62,000	.....	.....	708,000	409,800	25,000	.....	273,200	Rose St. Extension.
	Rose St. Widening	Huguenot St. to Main St.	850		45–50	66	26	40	Concrete	800,000	63,000	.....	.....	863,000	511,800	10,000	.....	341,200	Rose St. Widening.
	Webster Ave.	Eastchester Road to Hutchinson River Blvd.	4,900		60–66	60	14–24	40	Concrete	32,500	238,000	.....	.....	270,500	195,100	.....	.....	75,400	Webster Ave.
	West Main St. Widening	Roosevelt Square to Weyman Ave.	2,000		66	100	....	60	Concrete	757,000	90,000	.....	.....	847,000	328,000	30,000	.....	489,000	West Main St. Widening.
	West Main St. Widening	Weyman Ave. to Westchester Co. Park Com.	550		66	100	....	72	Concrete	175,000	51,400	.....	200,000	426,400	126,400	10,000	100,000	190,000	West Main St. Widening.
	New Playfield	Seventh St. and Harmon Ave.	....	4	....	....	....	....	.....	160,000	... ..	20,000	.....	180,000	60,000	.....	.....	120,000	New Playfield.
	Glenmore Drive School	Calhoun Ave. and Glenmore Drive	....	5	....	....	....	....	.....	133,000	.....	32,000	385,000	550,000	.....	.....	.....	550,000	Glenmore Drive School.
	Hardscrable School	North of City Park	....	4.5	....	....	....	....	.....	90,000	.....	.....	450,000	540,000	.....	.....	.....	540,000	Hardscrable School.
	Senior High School Addition	North Avenue	6 rooms		....	....	....	....	.....	.....	.....	.....	80,000	80,000	.....	.....	.....	80,000	Senior High School Addition.
	Weyman Avenue School	Gilbert Place and Weyman Ave.	....	4 8	....	....	....	....	.....	220,000	.....	.....	700,000	920,000	.....	.....	.....	920,000	Weyman Avenue School.
														$11,471,300	$2,380,600	$330,000	$100,000	$8,660,700	
1931–35	Ashland St.—Fifth Ave. Corner	N. W. Corner Ashland St. and Fifth Ave.	....		....	....	....	....	.....	1,000	1,000	.....	.....	$2,000	.....	.....	.....	$2,000	Ashland St.—Fifth Ave. Corner.
	Ashland St. Extension	Chatsworth Pl. to Hardscrable Road	300		....	60	....	36	Concrete	20,000	8,000	.....	.....	28,000	11,200	.....	.....	16,800	Ashland St. Extension.
	Avenue E Extension	Avenue E. to Huguenot Street	220		....	50	....	36	Concrete	120,000	5,000	.....	.....	125,000	50,000	.....	.....	75,000	Avenue E Extension
	Beaufort Place Extension	Fifth Ave. to Treno St.	450		...	60	....	40	Concrete	100,000	8,000	.....	.....	108,000	43,200	.....	.....	64,800	Beaufort Pl. Extension.
	Cedar St. Extension	Orchard St. to Manhattan Ave.	430		....	60	....	36	Concrete	45,000	42,000	Bridge	120,000	207,000	88,000	.....	60,000	59,000	Cedar St. Extension.
	Cedar St. Corner	N. W. Corner at Huguenot St.	....		....	....	....	....	.....	.....	2,000	.....	.....	2,000	.....	.....	.....	2,000	Cedar St. Corner.
	Clinton Place Widening	Church St. to Locust Ave.	700		50	60	26	36	Concrete	100,000	20,000	.....	.....	120,000	48,000	.....	.....	72,000	Clinton Place Widening.
	Division St. Bridge	Over Pelham-Port Chester Pkway. and N. Y. N. H. & H. R. R.	....		....	....	....	....	.....	.....	.....	.....	200,000	200,000	.....	100,000	50,000	50,000	Division St. Bridge.
	Fifth Ave. Widening	Rockland Place East to City Line	3,900		50	60	...	36	Concrete	80,000	114,000	.....	.....	194,000	117,000	.....	.....	77,000	Fifth Ave. Widening.
	Guion Place Extension	Winyah Avenue to Colgni Avenue	1,300		....	80	....	36	Concrete	300,000	52,000	.....	.....	352,000	70,400	.....	.....	281,600	Guion Place Extension.
	Guion Place Widening	Lockwood Avenue to Winyah Ave.	1,200		60	80	....	....	Concrete	80,000	... ...	.. ....	.....	80,000	32,000	.....	.....	48,000	Guion Place Widening.
	Hardscrable Road Widening	Ashland St. Extension to Beechmont Drive	300		50	60	28	36	Concrete	15,000	3,000	.....	.....	18,000	.....	... ...	.....	18,000	Hardscrable Road Widening.
	Hudson St. Widening	Main St. to Huguenot St.	830		35	50	20	36	Concrete	252,000	8,500	.....	.....	260,500	130,000	.....	.....	130,500	Hudson St. Widening.
	Huguenot St. Straightening	South Side from Harrison St. to Cedar St.	320		....	...	....	....	.....	50,000	10,000	.....	.....	60,000	.....	.....	.....	60,000	Huguenot St. Straightening.
	LeRoy Place Extension	Banks St. to Church St.	220		....	...	....	....	.....	180,000	5,000	.....	.....	180,000	72,000	.....	.....	108,000	LeRoy Place Extension.
	LeRoy Place Widening	Center Ave. to Church St.	425		....	...	....	....	.....	200,000	10,000	.....	.....	210,000	84,000	.....	.....	126,000	LeRoy Place Widening.
	Mill Dam Raising 4 Feet		90		....	...	....	....	.....	.....	.....	.....	100,000	100,000	24,000	.....	.....	76,000	Mill Dam Raising 4 Feet.
	Mill Road Corner	At Pleasant St. Extension	....		...	....	...	....	.....	600	.....	.....	.....	600	400	.....	.....	200	Mill Road Corner.

Dat Impro	Total Cost	Local Benefit Assessment	State or County Aid	Railroad Pays Part Cost of Bridge	Net Cost to Municipality	Name and Description
931– Cont	$50,500	$20,200	.....	.....	$30,300	Mill Road Widening.
	170,500	68,200	.....	.....	102,300	Petersville Road Widening.
	78,000	31,200	.....	.....	46,800	Petersville Road Widening.
						Pelham Road Extension
	115,000	.....	7,500	.....	107,500	(a) Neptune Lane Widening.
	168,000	.....	25,000	.....	143,000	(b) Neptune Lane Extension.
	250,000	.....	60,000	.....	190,000	(c) Bridge and approaches.
	48,000	Deed Land	20,000	.....	28,000	(d) New Thoroughfare.
	220,000	.....	60,000	.....	160,000	(e) Overpass.
	178,000	47,200	60,000	.....	70,800	(f) Ramp Roads at Main St.
	665,000	133,000	70,000	.....	462,000	Pine Brook Blvd.
	4,000	.....	.....	.....	4,000	Pine Brook Road.
	57,000	22,800	.....	.....	34,200	Potter Ave. Extension.
	55,100	22,000	.....	.....	33,100	Potter Ave. Widening.
	430,000	142,000	75,000	.....	213,000	Quaker Ridge Road Widening.
	33,000	13,200	.....	.....	19,800	Rockland Place Extension.
	126,500	50,600	.....	.....	75,900	Webster Ave. Extension.
	300,000	112,000	20,000	.....	168,000	West Main St. Widening.
	10,000	.....	.....	.....	10,000	Beechmont Lake Improvement.
	100,000	40,000	.....	.....	60,000	Biltmore Park.
	50,000	.....	.....	.....	50,000	Morgan St. Park.
	125,000	50,000	.....	.....	75,000	Neptune Park Extension.
	120,000	60,000	.....	.....	60,000	Orchard St. Playfield.
	50,000	.....	.....	.....	50,000	Playfield enlarged by 5 acres.
	58,000	.....	.....	.....	58,000	Playfield enlarged to S. E. & N.
	50,000	20,000	.....	.....	30,000	Further improvements around City Hall.
	500,000	.....	.....	.....	500,000	Weyman Ave. Junior High School
	240,000	.....	.....	.....	240,000	Roosevelt School
	$6,498,700	$1,602,600	$497,500	$110,000	$4,288,600	

PROGRAM AND TRIAL CAPITAL BUDGET, 1929-1935 (Cont'd)

Date of Improvement	Name and Description	Location	Lineal Feet	Acres in Tract	Street Width Present	Street Width Proposed	Roadway Width Present	Roadway Width Proposed	Type of Pavement	Cost of Property and Damages	Roadway, Curbs and Drainage	Fill, Grading and Landscaping	Buildings and Structures	Total Cost	Local Benefit Assessment	State or County Aid	Railroad Pays Part Cost of Bridge	Net Cost to Municipality	Name and Description
1931-35 (Cont'd)	Mill Road Widening	City Park to Pelham Port Chester Pkway.	....		40	60	20	36	Concrete	$40,500	$10,000	.....	.....	$50,500	$20,200	.....	.....	$30,300	Mill Road Widening.
	Petersville Road Widening	Hay St. to Boston Post Road	3,300		50	60	30	40	Concrete	80,500	90,000	.....	.....	170,500	68,200	.....	.....	102,300	Petersville Road Widening.
	Petersville Road Widening	Hay St. to Mill Road	1,750		50	60	30	40	Concrete	30,000	48,000	.....	.....	78,000	31,200	.....	.....	46,800	Petersville Road Widening.
	Pelham Road Extension—		....		....	....	....	....											Pelham Road Extension.
	(a) Neptune Lane Widening	Echo Ave. East	570		30	50	20	40	Concrete	100,000	15,000	.....	.....	115,000	.....	7,500	.....	107,500	(a) Neptune Lane Widening.
	(b) Neptune Lane Extension	To proposed Bridge	650		....	50	....	40	Concrete	80,000	18,000	70,000	.....	168,000	.....	25,000	.....	143,000	(b) Neptune Lane Extension.
	(c) Bridge and Approaches	Drawbridge over Channel	70		....	....	....	40	Concrete	.....	.....	.....	250,000	250,000	.....	60,000	.....	190,000	(c) Bridge and approaches.
	(d) New Thoroughfare	From proposed Bridge to Main St.	1,750		...	60	....	40	Concrete	.....	48,000	.....	.....	48,000	Deed Land	20,000	.....	28,000	(d) New Thoroughfare.
	(e) Overpass	To connect with Petersville Road	....		...	....	...	40	Concrete	60,000	.....	40,000	150,000	220,000	.....	60,000	.....	160,000	(e) Overpass.
	(f) Ramp Roads at Main St.	From Pelham Road Extension	600		...	....	...	20	Concrete	150,000	8,000	20,000	.....	178,000	47,200	60,000	.....	70,800	(f) Ramp Roads at Main St.
	Pine Brook Blvd.	Quaker Ridge Road to Stratton Road	3,800		...	...	...	....	.....	85,000	480,000	Bdg. 100,000	.....	665,000	133,000	70,000	.....	462,000	Pine Brook Blvd.
	Pine Brook Road Corner	N. E. Corner at Fifth Ave.	....		...	...	...	....	.....	3,000	1,000	.....	.....	4,000	.....	.....	.....	4,000	Pine Brook Road.
	Potter Ave. Extension	Fifth Ave. to Chatsworth Pl.	900		...	60	...	36	Concrete	20,000	22,000	15,000	.....	57,000	22,800	.....	.....	34,200	Potter Ave. Extension.
	Potter Ave. Widening	Clove St. to Fifth Ave.	900		50	60	30	40	Concrete	20,100	35,000	.....	.....	55,100	22,000	.....	.....	33,100	Potter Ave. Widening.
	Quaker Ridge Road Widening	North Ave. to Weaver St.	7,800		20-50	60	20	40	Concrete	180,000	250,000	.....	.....	430,000	142,000	75,000	.....	213,000	Quaker Ridge Road Widening.
	Rockland Place Extension	Fifth Ave. to Pine Brook Road	300		....	60	....	36	Concrete	25,000	8,000	.....	.....	33,000	13,200	.....	.....	19,800	Rockland Place Extension.
	Webster Ave. Extension	Main St. to Laurel Place	275		...	60	...	36	Concrete	120,000	6,500	.....	.....	126,500	50,600	.....	.....	75,900	Webster Ave. Extension.
	West Main St. Widening	W. C. P. C. to Pelham Line	1,500		66	100	36	72	Concrete	200,000	100,000	.....	.....	300,000	112,000	20,000	.....	168,000	West Main St. Widening.
	Beechmont Lake Improvement		....		....	....	....	....	.....	.....	10,000	.....	.....	10,000	.....	.....	.....	10,000	Beechmont Lake Improvement.
	Biltmore Park	Petersville Road and Biltmore Ave.	....	1.25	...	....	....	....	.....	60,000	.....	40,000	.....	100,000	40,000	.....	.....	60,000	Biltmore Park.
	Morgan St. Park		....	....	....	....	....	....	.....	City Land	.....	45,000	5,000	50,000	.....	.....	.....	50,000	Morgan St. Park.
	Neptune Park Extension		....	1.5	...	...	....	....	.....	100,000	.....	25,000	.....	125,000	50,000	.....	.....	75,000	Neptune Park Extension.
	Orchard St. Playfield		....	4	....	...	....	....	.....	80,000	.....	40,000	.....	120,000	60,000	.....	.....	60,000	Orchard St. Playfield.
	Playfield enlarged by 5 acres	City Park	....	....	...	...	....	....	.....	.....	.....	50,000	.....	50,000	.....	.....	.....	50,000	Playfield enlarged by 5 acres
	Playfield enlarged to S. E. & N.	Central Junior High School	....	3	....	....	....	....	.....	33,000	.....	25,000	.....	58,000	.....	.....	.....	58,000	Playfield enlarged to S. E. & N.
	Further improvements around City Hall		....	....	...	....	....	....	.....	.....	.....	50,000	.....	50,000	20,000	.....	.....	30,000	Further improvements around City Hall.
	Weyman Ave. Junior High School		....	....	...	....	....	....	.....	.....	.....	.....	500,000	500,000	.....	.....	.....	500,000	Weyman Ave. Junior High School
	Roosevelt School		....	....	....	....	....	....	.....	.....	.....	.....	240,000	240,000	.....	.....	.....	240,000	Roosevelt School
														$6,498,700	$1,602,600	$497,500	$110,000	$4,288,600	

OFFICIAL MAP
CITY OF NEW ROCHELLE
WESTCHESTER COUNTY NEW YORK

PREPARED BY THE

PLANNING BOARD

TECHNICAL ADVISORY CORPORATION *CONSULTING ENGINEERS*

NEW YORK CITY

1929

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